# DCR-TRV940/TRV940E/TRV950/TRV950E

RMT-811

# SERVICE MANUAL

LEVEL 2

Ver 1.1 2002. 09

Revision History

*US Model*
*Canadian Model*
*DCR-TRV950*
*AEP Model*
*DCR-TRV940E/TRV950E*
*UK Model*
*DCR-TRV950E*
*East European Model*
*North European Model*
*Russian Model*
*DCR-TRV940E/TRV950E*
*E Model*
*DCR-TRV940/TRV940E/TRV950/TRV950E*
*Hong Kong Model*
*DCR-TRV940/TRV950E*
*Australian Model*
*DCR-TRV950E*
*Chinese Model*
*DCR-TRV940E*
*Korea Model*
*DCR-TRV940*
*Tourist Model*
*DCR-TRV940/TRV940E*

Photo: DCR-TRV950

J MECHANISM

## Link

| | | |
|---|---|---|
| SPECIFICATIONS | BLOCK DIAGRAMS | PRINTED WIRING BOARDS |
| SERVICE NOTE | FRAME SCHEMATIC DIAGRAMS | REPAIR PARTS LIST |
| DISASSEMBLY | SCHEMATIC DIAGRAMS | |

- For ADJUSTMENTS (SECTION 6), refer to SERVICE MANUAL, ADJ (992997851.pdf).
- For INSTRUCTION MANUAL, refer to SERVICE MANUAL, LEVEL 1 (992997841.pdf).
- For MECHANISM ADJUSTMENTS, refer to the “DV MECHANICAL ADJUSTMENT MANUAL VI J MECHANISM” (9-929-807-11).
- Reference No. search on printed wiring boards is available.
- Table for differences of function of each model.
- When the laser unit (D501) is repaired.
  Make sure to follow the items of “NOTE ON HANDLING THE LASER DIODE”.

**On the DB-014, VC-288 boards**

This service manual provides the information that is premised the circuit board replacement service and not intended repair inside the DB-014, VC-288 boards.
Therefore, schematic diagram, printed wiring board, waveforms, mounted parts location and electrical parts list of the DB-014, VC-288 boards are not shown.
The following pages are not shown.

| | | | |
|---|---|---|---|
| Schematic diagram | Pages 4-13 to 4-64 | Mounted parts location | Pages 4-132 to 4-135 |
| Printed wiring board | Pages 4-93 to 4-100 | Electrical parts list | Pages 5-17 to 5-23, 5-29 to 5-36 |
| Waveforms | Pages 4-127 to 4-129 | | |

Mini DV Digital Video Cassette

DIGITAL VIDEO CAMERA RECORDER

SONY®

COVER

Self Diagnosis Supported model

InfoLITHIUM M SERIES

Cassette Memory

MEMORY STICK

Bluetooth

# SPECIFICATIONS

## Video camera recorder

### System

**Video recording system**
2 rotary heads
Helical scanning system
**Audio recording system**
Rotary heads, PCM system
Quantization: 12 bits (Fs 32 kHz, stereo 1, stereo 2), 16 bits (Fs 48 kHz, stereo)
**Video signal**
TRV940/TRV950:
NTSC color, EIA standards
TRV940E/TRV950E:
PAL color, CCIR standards
**Usable cassette**
Mini DV cassette with the Mini DV mark printed
**Tape speed**
SP: Approx. 18.81 mm/s
LP: Approx. 12.56 mm/s
**Recording/playback time (using cassette DVM60)**
SP: 1 hour
LP: 1.5 hours
**Fastforward/rewind time (using cassette DVM60)**
When using the battery pack:
Approx. 2 min. and 30 seconds
When using the AC power adaptor:
Approx. 1 min. and 45 seconds
**Viewfinder**
Electric viewfinder (color)
**Image device**
3.8 mm (1/4.7 type) 3 CCD (Charge Coupled Device)
Gross: Approx. 1 070 000 pixels
Effective (still):
Approx. 1 000 000 pixels
Effective (moving):
Approx. 690 000 pixels
**Lens**
Combined power zoom lens
Filter diameter: 37 mm (1 1/2 in)
12× (Optical), 150× (Digital)
F 1.6 – 2.8
**Focal length**
3.6 – 43.2 mm (5/32 – 1 3/4 in.)
When converted to a 35 mm still camera
In CAMERA
49 – 588 mm (1 15/16 – 23 1/4 in.)
In MEMORY
41 – 492 mm (1 5/8 – 19 3/8 in.)
**Color temperature**
Auto, Indoor (3 200 K), Outdoor (5 800 K),
**Minimum illumination**
7 lx (lux) (F 1.6)

### Input/Output connectors

**S video input/output**
TRV940/TRV950:
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 Ω (ohms), unbalanced
Chrominance signal: 0.286 Vp-p, 75 Ω (ohms), unbalanced
TRV940E/TRV950E:
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 Ω (ohms), unbalanced
Chrominance signal: 0.3 Vp-p, 75 Ω (ohms), unbalanced
**Audio/Video input/output**
AV MINI JACK, 1 Vp-p, 75 Ω (ohms), unbalanced, sync negative
327 mV, (at output impedance more than 47 kΩ (kilohms))
Output impedance with less than 2.2 kΩ (kilohms)/Stereo minijack (ø 3.5 mm)
Input impedance more than 47 kΩ (kilohms)
**DV input/output**
4-pin connector
**Headphone jack**
Stereo minijack (ø 3.5 mm)
**LANC jack**
Stereo mini-minijack (ø 2.5 mm)
**USB jack**
mini-B
**MIC jack**
Minijack, 0.388 mV low impedance with 2.5 to 3.0 V DC, output impedance 6.8 kΩ (kilohms) (ø 3.5 mm)
Stereo type

### LCD screen

**Picture**
8.8 cm (3.5 type)
72.2 × 50.4 mm (2 7/8 × 2 in.)
**Total dot number**
246 400 (1 120 × 220)

### Wireless communications

**(DCR-TRV950/TRV950E only)**
**Communications system**
Bluetooth standard Ver.1.1
**Max. baud rate[1) 2)]**
Approx. 723 kbps
**Output**
Bluetooth standard Power Class 2
**Communications distance[2)]**
Max. wireless distance
Approx. 10 m (393 3/4 in.) (When connecting to BTA-NW1/NW1A)
**Compatible Bluetooth profile[3)]**
Generic Access Profile
Dial-up Networking Profile
**Operating frequency band**
2.4 GHz band (2.400 GHz – 2.483 5 GHz)

1) Max. baud rate of Bluetooth standard Ver.1.1
2) Varies according to the distance between communicating devices, presence of obstacles, radiowave conditions, and other factors.
3) This is a specification matched to specific usage requirements between Bluetooth compatible devices. It is laid down in the Bluetooth standards.

### General

**Power requirements**
7.2 V (battery pack)
8.4 V (AC power adaptor)
**Average power consumption (when using the battery pack)**
During camera recording using LCD
TRV940/TRV950:
6.3 W
TRV940E/TRV950E:
6.0 W
Viewfinder
TRV940/TRV950:
4.9 W
TRV940E/TRV950E:
4.7 W
**Operating temperature**
0°C to 40°C (32°F to 104°F)
**Storage temperature**
–20°C to + 60°C
(–4°F to + 140°F)
**Dimensions (Approx.)**
93 × 99 × 202 mm
(3 3/4 × 4 × 8 in.) (w/h/d)
**Mass (Approx.)**
DCR-TRV950/TRV950E:
970 g (2 lb 2 oz)
DCR-TRV940/TRV940E:
960 g (2 lb 1 oz)
main unit only
1.1kg (2 lb 6 oz)
including the battery pack NP-FM50, cassette DVM60, lens cap and Shoulder strap

## AC power adaptor

**Power requirements**
100 – 240 V AC, 50/60 Hz
**Power consumption**
23 W
**Output voltage**
DC OUT: 8.4 V, 1.5 A in the operating mode
**Operating temperature**
0°C to 40°C (32°F to 104°F)
**Storage temperature**
–20°C to + 60°C
(–4°F to + 140°F)
**Dimensions (approx.)**
125 × 39 × 62 mm
(5 × 1 9/16 × 2 1/2 in.) (w/h/d)
excluding projecting parts
**Mass (approx.)**
280 g (9.8 oz)
TRV940/TRV950:
excluding power cord
TRV940E/TRV950E:
excluding mains lead

## Battery pack

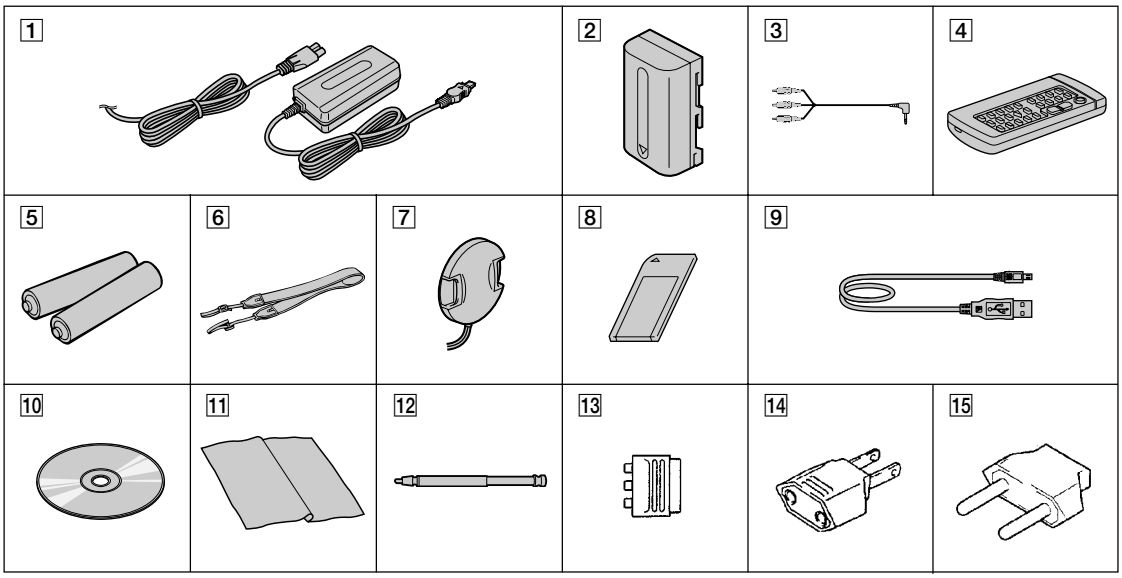
**Maximum output voltage**
DC 8.4 V
**Output voltage**
DC 7.2 V
**Capacity**
8.5 Wh (1 180 mAh)
**Dimensions (approx.)**
38.2 × 20.5 × 55.6 mm
(1 9/16 × 13/16 × 2 1/4 in.) (w/h/d)
**Mass (approx.)**
76 g (2.7 oz)
**Type**
Lithium ion

## "Memory Stick"

**Memory**
Flash memory
8MB: MSA-8A
**Operating voltage**
2.7 – 3.6 V
**Power consumption**
Approx. 45 mA in the operating mode
Approx. 130 µA in the standby mode
**Dimensions (approx.)**
50 × 2.8 × 21.5 mm
(2 × 1/8 × 7/8 in.) (w/h/d)
**Mass (approx.)**
4 g (0.14 oz)

Design and specifications are subject to change without notice.

## Supplied accessories




1 **AC-L10A/L10B/L10C AC power adaptor** (1), **power cord** (1)
2 **NP-FM50 battery pack** (1)
3 **A/V connecting cable** (1)
4 **Wireless Remote Commander** (1)
5 **Size AA (R6) battery for Remote Commander** (2)
6 **Shoulder strap** (1)
7 **Lens cap** (1)
8 **"Memory Stick"** (1)
9 **USB cable** (1)
10 **CD-ROM (SPVD-008 USB Driver)** (1)
11 **Cleaning cloth** (1)
12 **Stylus** (1) (DCR-TRV950/TRV950E only)
13 **21-pin adaptor** (1)
AEP, UK, EE, NE, RU
14 **2-pin conversion adaptor** (1)
E, HK
15 **2-pin conversion adaptor** (1)
JE

## Table for differences of function

| Model | DCR-TRV940 | DCR-TRV940E | DCR-TRV950 | DCR-TRV950E |
|---|---|---|---|---|
| Destination | E, HK, KR, JE | AEP, EE, NE, RU, E, CH, JE | US, CND, E | AEP, UK, EE, NE, RU, E, HK, AU |
| Color system | NTSC | PAL | NTSC | PAL |
| Wireless communications | × | × | ○ | ○ |
| BT board | – | – | BT-003 (Note) | BT-003 (Note) |

**Note:** BT-003 board is only replaced as a mounted board.
Therefore, schematic diagrams and printed wiring boards are not shown.

- Abbreviation
  AUS : Australian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  JE : Tourist model
  KR : Korean model
  NE : North European model
  RU : Russian model

CLASS 1 LASER PRODUCT
LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or eqivalent type.

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

**LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.**

# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

**Unleaded solder**

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

**: LEAD FREE MARK**

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

## TABLE OF CONTENTS


Section Title Page

**1. SERVICE NOTE**

1-1. Note for Repair ····· 1-1
1-2. Discharging of the Flash Unit's Charging Capacitor ····· 1-1
1-2-1. Preparing the Short Jig ····· 1-1
1-2-2. Discharging the Capacitor ····· 1-1
1-3. Power Supply During Repairs ····· 1-2
1-4. To Take Out a Cassette when not Eject (Force Eject) ···· 1-2
1-5. Notes on Handling the Laser Diode [Laser Unit (D501)] ····· 1-3
1-5-1. Soldering Conditions of Laser Unit (D501) ····· 1-3
1-6. Self-diagnosis Function ····· 1-4
1-6-1. Self-diagnosis Function ····· 1-4
1-6-2. Self-diagnosis Display ····· 1-4
1-6-3. Service Mode Display ····· 1-4
1-6-4. Self-diagnosis Code Table ····· 1-5

**2. DISASSEMBLY**

2-1. Cabinet (R) Block ····· 2-2
2-2. P Cabinet (C) ····· 2-2
Service Position to Check PD-168 Board ····· 2-3
2-3. LCD Module ····· 2-3 4-3.
2-4. LCD Block ····· 2-4
2-5. FP-495 Flexible Board ····· 2-4
2-6. CK-116 Board ····· 2-5
2-7. F Panel Block ····· 2-5
Service Position to Check MA-410 Board ····· 2-6
2-8. AF Laser Bracket Assembly ····· 2-6
2-9. MA-410 Board ····· 2-7
2-10. FP-504 Flexible Board ····· 2-7
2-11. Battery Panel Block ····· 2-8
2-12. BT-003 Board (TRV950/TRV950E) ····· 2-8
2-13. ST Frame Block ····· 2-9 4-4.
2-14. DB-014 Board ····· 2-9 4-5.
2-15. MD Block ····· 2-10
2-16. Lens Block ····· 2-11
2-17. VC-288 Board ····· 2-11
2-18. Mechanism Deck (J200) ····· 2-12
2-19. Stroboscope Block ····· 2-12
2-20. JK-222 Board ····· 2-13
Service Position to Check the Camera Section ····· 2-13
Service Position to Check the VTR Section ····· 2-14
2-21. Flash Unit ····· 2-15
2-22. EVF Block ····· 2-15
2-23. FP-497 Flexible Board ····· 2-16
2-24. Control Switch Block (PS-1870) ····· 2-17
2-25. SE-132 Board ····· 2-17
2-26. Grip Cabinet Block ····· 2-18
2-27. Control Switch Block (CF-1870) ····· 2-19
2-28. MS Assembly ····· 2-19
2-29. VF lens Assembly ····· 2-20
2-30. Circuit Boards Location ····· 2-21
2-31. Flexible Boards Location ····· 2-22

**3. BLOCK DIAGRAMS**

3-1. Overall Block Diagram (1/4) ····· 3-1
3-2. Overall Block Diagram (2/4) ····· 3-3
3-3. Overall Block Diagram (3/4) ····· 3-5
3-4. Overall Block Diagram (4/4) ····· 3-7
3-5. Power Block Diagram (1/3) ····· 3-9
3-6. Power Block Diagram (2/3) ····· 3-11
3-7. Power Block Diagram (3/3) ····· 3-13

**4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS**

4-1. Frame Schematic Diagrams
Frame Schematic Diagram (1/3) ····· 4-1
Frame Schematic Diagram (2/3) ····· 4-3
Frame Schematic Diagram (3/3) ····· 4-5
4-2. Schematic Diagrams ····· 4-9
CD-389 (CCD IMAGER) ····· 4-11
SE-132 (PITCH/YAW SENSOR) ····· 4-65
MA-410 (MIC AMP, AF LASER CONTROL) ····· 4-67
CK-116 (CONTROL SWITCH) ····· 4-69
JK-222 (AV IN/OUT, DV/USB CONNECTOR) ····· 4-71
PD-168 (1/2) (LCD DRIVER, TIMING GENERATOR) ····· 4-73
PD-168 (2/2) (LCD DRIVER, BACKLIGHT) ····· 4-75
LB-080 (EVF, EVF BACKLIGHT) ····· 4-77
FP-504 FLEXIBLE ····· 4-79
FP-495, FP-497, FP-500, FP-503 FLEXIBLE ····· 4-81
FP-100, FP-102, FP-228 FLEXIBLE ····· 4-83
CONTROL SWITCH BLOCK (CF-1870, KP-1870, PS-1870) ····· 4-85
Printed Wiring Boards ····· 4-87
CD-389 ····· 4-89
SE-132 ····· 4-101
MA-410 ····· 4-103
CK-116 ····· 4-105
JK-222 ····· 4-109
PD-168 ····· 4-113
LB-080 ····· 4-115
FP-504 FLEXIBLE ····· 4-117
FP-495, FP-497 FLEXIBLE ····· 4-121
FP-100, FP-102, FP-228 FLEXIBLE ····· 4-123
Waveforms ····· 4-125
Mounted Parts Location ····· 4-131

**5. REPAIR PARTS LIST**

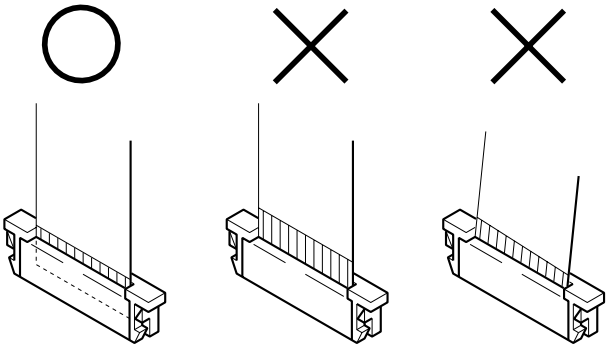
5-1. Exploded Views ····· 5-1
5-1-1. Main Section ····· 5-1
5-1-2. F Panel Block ····· 5-2
5-1-3. Cabinet (R) Block ····· 5-3
5-1-4. LCD Block ····· 5-4
5-1-5. Cabinet (L) Block ····· 5-5
5-1-6. Grip Cabinet Block ····· 5-6
5-1-7. Stroboscope Block ····· 5-7
5-1-8. EVF Block ····· 5-8
5-1-9. Battery Panel Block ····· 5-9
5-1-10. MD Block ····· 5-10
5-1-11. Lens Block ····· 5-11
5-1-12. Overall Mechanism Deck Section (J200) ····· 5-12
5-1-13. LS Chassis Block Assembly ····· 5-13
5-1-14. Mechanism Chassis Block Assembly ····· 5-14
5-2. Electrical Parts List ····· 5-15

COVER

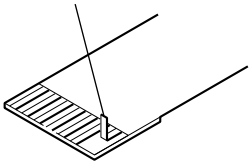
# SECTION 1
# SERVICE NOTE

## 1-1. NOTE FOR REPAIR

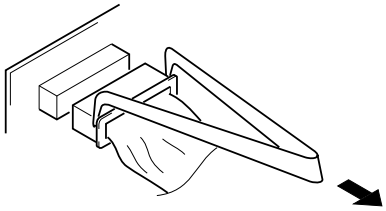
Make sure that the flat cable and flexible board are not cracked of bent at the terminal.
Do not insert the cable insufficiently nor crookedly.



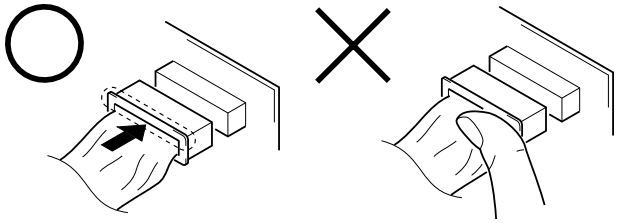
Cut and remove the part of gilt which comes off at the point. (Be careful or some pieces of gilt may be left inside)



When remove a connector, don't pull at wire of connector.
It is possible that a wire is snapped.



When installing a connector, don't press down at wire of connector.
It is possible that a wire is snapped.

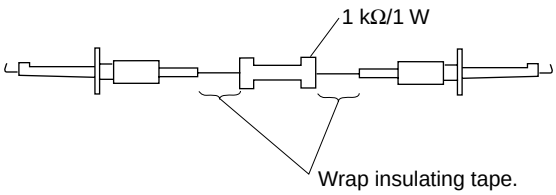


## 1-2. DISCHARGING OF THE FLASH UNIT'S CHARGING CAPACITOR

The charging capacitor of the Flash unit is charged up to the maximum 300 V potential.
There is a danger of electric shock by this high voltage when the battery is handled by hand. The electric shock is caused by the charged voltage which is kept without discharging when the main power of the unit is simply turned off. Therefore, the remaining voltage must be discharged as described below.

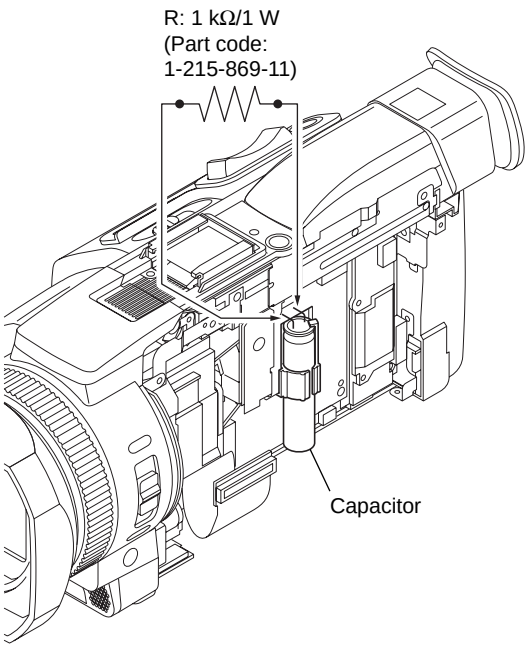
### 1-2-1. Preparing the Short Jig

To preparing the short jig, a small clip is attached to each end of a resistor of 1 kΩ /1 W (1-215-869-11).
Wrap insulating tape fully around the leads of the resistor to prevent electrical shock.




### 1-2-2. Discharging the Capacitor

Short-circuit between the positive and the negative terminals of charged capacitor with the short jig about 10 seconds.



## 1-3. POWER SUPPLY DURING REPAIRS

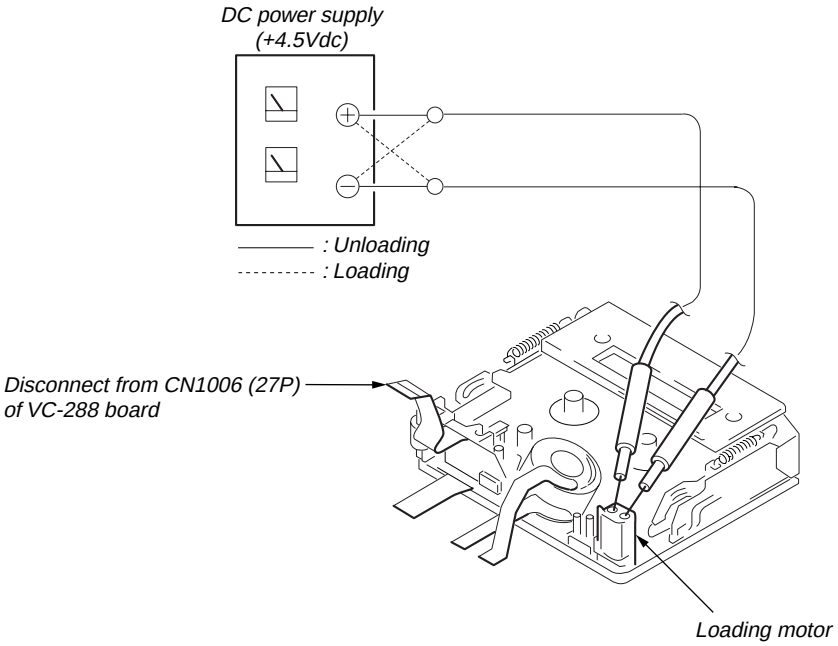
In this unit, about 10 seconds after power is supplied to the battery terminal using the regulated power supply (8.4V), the power is shut off so that the unit cannot operate.
These following two methods are available to prevent this. Take note of which to use during repairs.

**Method 1.**
Use the AC power adaptor (AC-L10, AC-VQ800 etc.).

**Method 2.**
Connect the servicing remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the commander switch to the “ADJ” side.

## 1-4. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT)

① Refer to 2-2 to remove the cabinet (R) block assembly.
② Refer to 2-7 to remove the F panel block.
③ Refer to 2-11 to remove the battery panel block.
④ Refer to 2-13 to remove the ST frame block.
⑤ Refer to 2-14 to remove the DB-014 board.
⑥ Refer to 2-15 to remove the MD block.
⑦ Supply +4.5V from the DC power supply to the loading motor and unload with a pressing the cassette compartment.



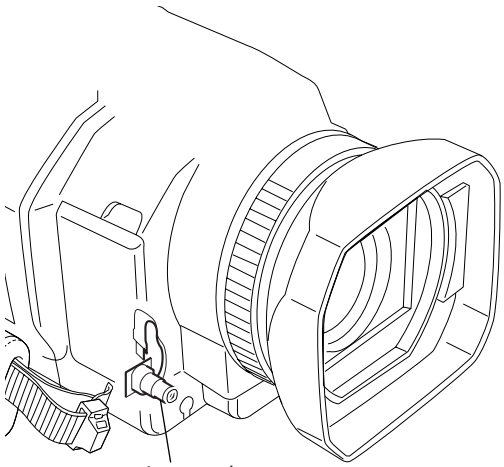
## 1-5. NOTES ON HANDLING THE LASER DIODE [LASER UNIT (D501)]

The laser diode may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

### 1-5-1. Soldering Conditions of Laser Unit (D501)

| | |
|---|---|
| Temperature of the Soldering Iron | 350 °C |
| Time to Solder | 3 seconds |
| Interval to Solder | Next terminal is soldered after waiting for 1 second |

**Note:** Adjustment is needed when laser unit (D501) is replaced. Refer to “20. Hologram AF Output Adjustment” and “21. Hologram AF Angle Check” of SERVICE MANUAL, ADJ (992997851.pdf).



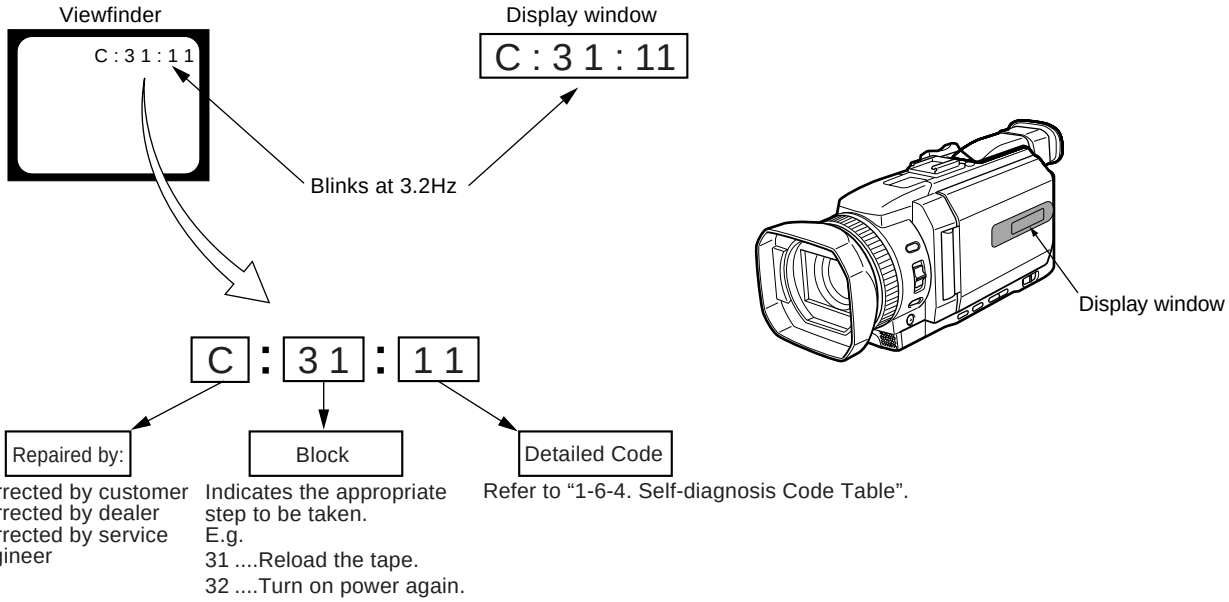
## 1-6. SELF-DIAGNOSIS FUNCTION

### 1-6-1. Self-diagnosis Function

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder or Display window what to do. This function consists of two display; self-diagnosis display and service mode display.
Details of the self-diagnosis functions are provided in the Instruction manual.

### 1-6-2. Self-diagnosis Display

When problems occur while the unit is operating, the counter of the viewfinder or Display window shows a 4-digit display consisting of an alphabet and numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.

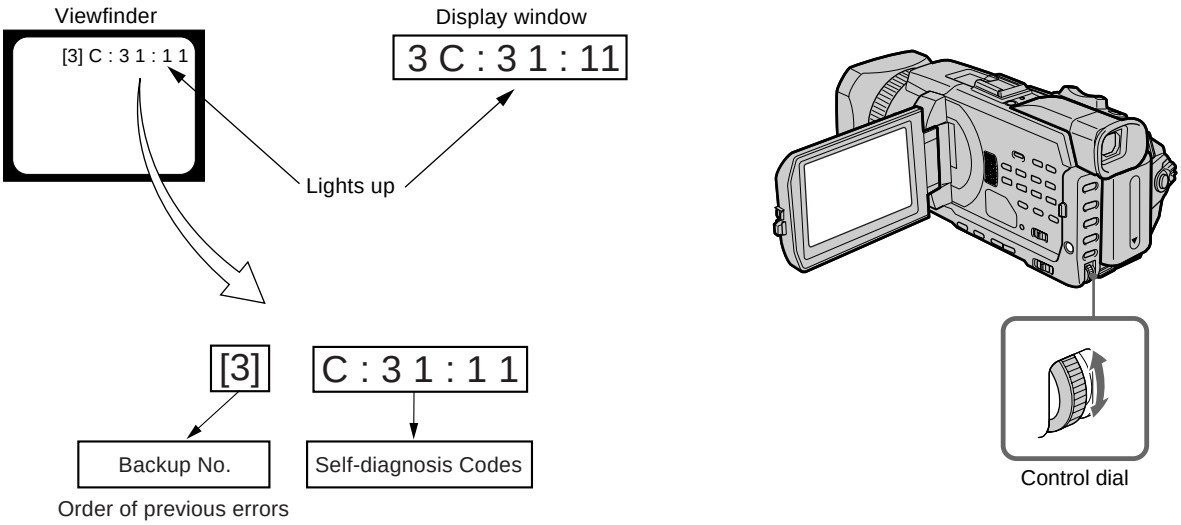



### 1-6-3. Service Mode Display

The service mode display shows up to six self-diagnosis codes shown in the past.

#### 1. Display Method

While pressing the “STOP” key, set the switch from OFF to “VCR”, and continue pressing the “STOP” key for 5 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.




#### 2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)
[1] : Occurred first time [4] : Occurred fourth time
[2] : Occurred second time [5] : Occurred fifth time
[3] : Occurred third time [6] : Occurred the last time

#### 3. End of Display

Turning OFF the power supply will end the service mode display.

**Note:** The “self-diagnosis display” data will not be erased (reset) when the lithium 3 V supply (CK-116 board BT5201) is removed.

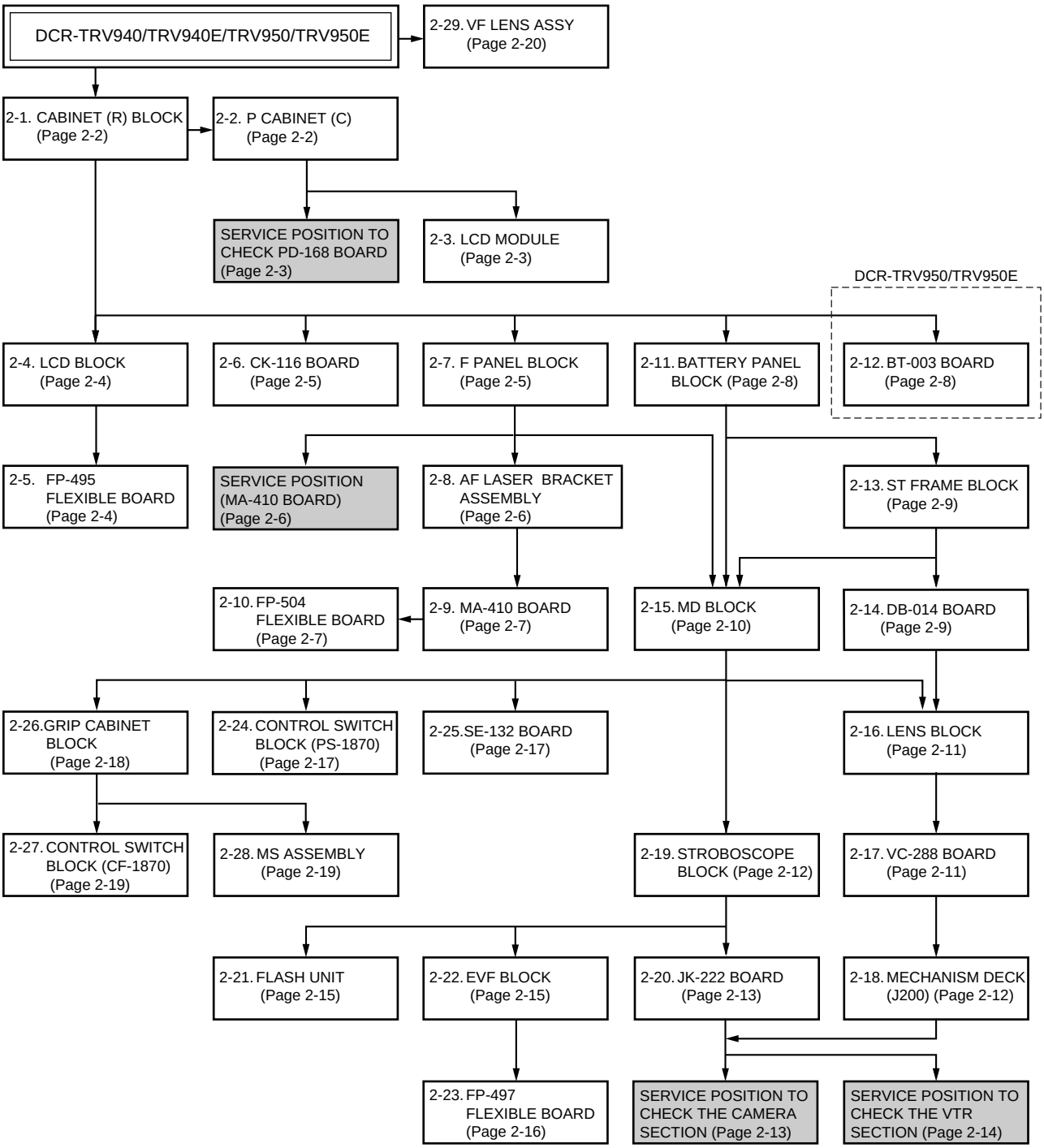
### 1-6-4. Self-diagnosis Code Table

| Self-diagnosis Code | | | | | Symptom/State | Correction |
|---|---|---|---|---|---|---|
| Repaired by: | Block Function | | Detailed Code | | | |
| C | 0 | 4 | 0 | 0 | Non-standard battery is used. | Use the info LITHIUM battery. |
| C | 2 | 1 | 0 | 0 | Condensation. | Remove the cassette, and insert it again after one hour. |
| C | 2 | 2 | 0 | 0 | Video head is dirty. | Clean with the optional cleaning cassette. |
| C | 3 | 1 | 1 | 0 | LOAD direction. Loading does not complete within specified time | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 1 | 1 | UNLOAD direction. Loading does not complete within specified time | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 2 | 0 | T reel side tape slacking when unloading. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 2 | 1 | Winding S reel fault when counting the rest of tape. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 2 | 2 | T reel fault. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 2 | 3 | S reel fault. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 2 | 4 | T reel fault. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 3 | 0 | FG fault when starting capstan. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 4 | 0 | FG fault when starting drum. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 4 | 2 | FG fault during normal drum operations. | Load the tape again, and perform operations from the beginning. |
| C | 3 | 1 | 1 | 0 | LOAD direction loading motor time-out. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 1 | 1 | 1 | UNLOAD direction loading motor time-out. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 2 | 0 | T reel side tape slacking when unloading. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 2 | 1 | Winding S reel fault when counting the rest of tape. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 2 | 2 | T reel fault. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 2 | 3 | S reel fault. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 2 | 4 | T reel fault. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 3 | 0 | FG fault when starting capstan. | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 4 | 0 | FG fault when starting drum | Remove the battery or power cable, connect, and perform operations from the beginning. |
| C | 3 | 2 | 4 | 2 | FG fault during normal drum operations | Remove the battery or power cable, connect, and perform operations from the beginning. |
| E | 2 | 0 | 0 | 0 | EEPROM data error | Initialize A, D page data (EEPROM data). |
| E | 6 | 1 | 0 | 0 | Difficult to adjust focus (Cannot initialize focus.) | Inspect the lens block focus MR (Pin ⑭, ⑮ of DB-014 board CN1004) when focusing is performed when the focus ring is rotated in the focus manual mode, and the focus motor drive circuit (IC3402 of DB-014 board) when the focusing is not performed. |
| E | 6 | 1 | 1 | 0 | Zoom operations fault (Cannot initialize zoom lens.) | Inspect the lens block zoom MR (Pin ⑩, ⑫ of DB-014 board CN1004) when zooming is performed when the zoom lens is operated and the zoom motor drive circuit (IC3402 of DB-014 board) when zooming is not performed. |
| E | 6 | 2 | 0 | 0 | Steadyshot function does not work well. (With pitch angular velocity sensor output stopped.) | Inspect pitch angular velocity sensor (SE4001 of SE-132 board) peripheral circuits. |
| E | 6 | 2 | 0 | 1 | Steadyshot function does not work well. (With yaw angular velocity sensor output stopped.) | Inspect yaw angular velocity sensor (SE4002 of SE-132 board) peripheral circuits. |
| E | 9 | 1 | 0 | 1 | Abnormality when flash is being charged. | Checking of flash unit or replacement of flash unit. |

COVER

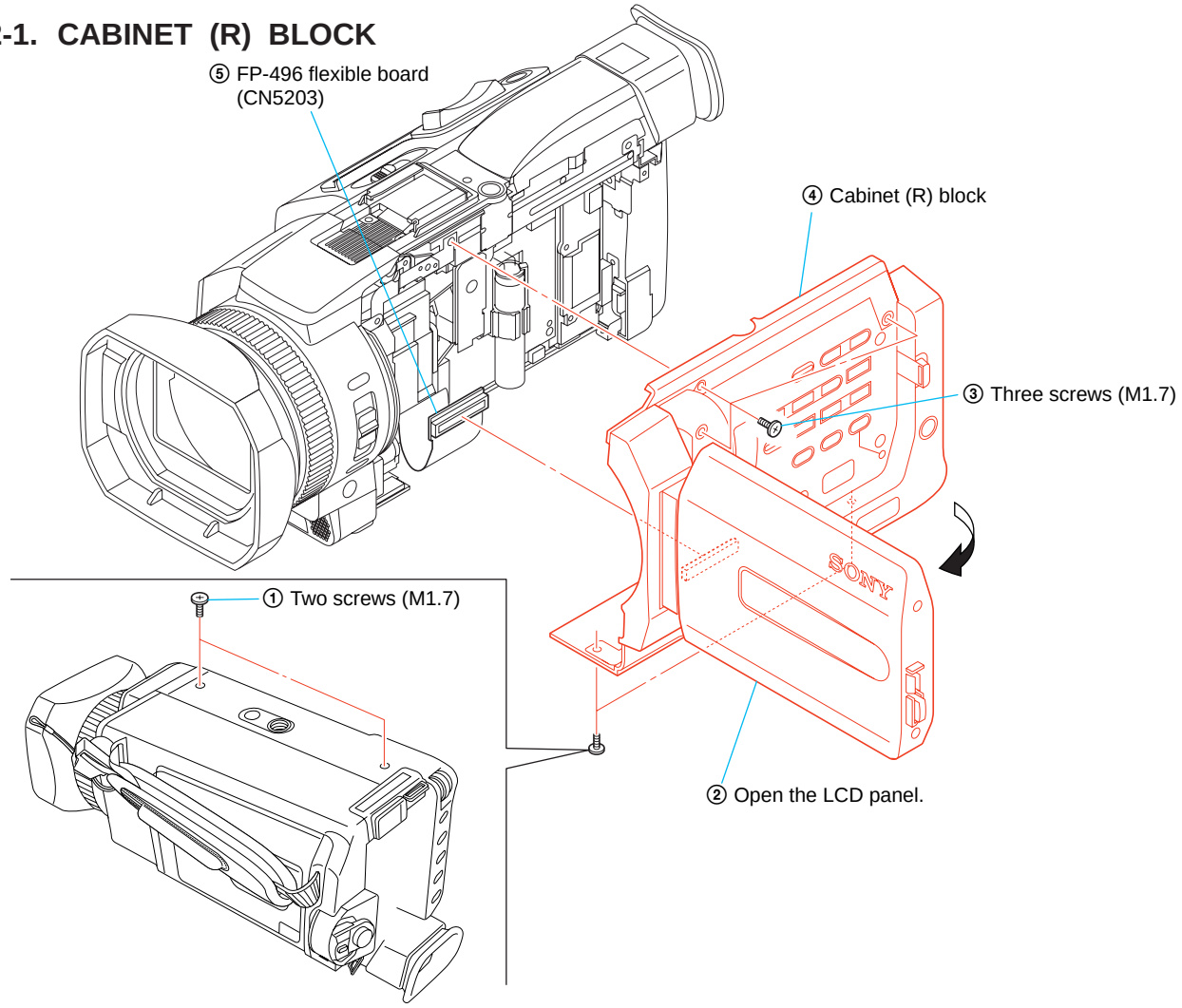
# SECTION 2
# DISASSEMBLY

• This set can be disassembled in the order shown below.

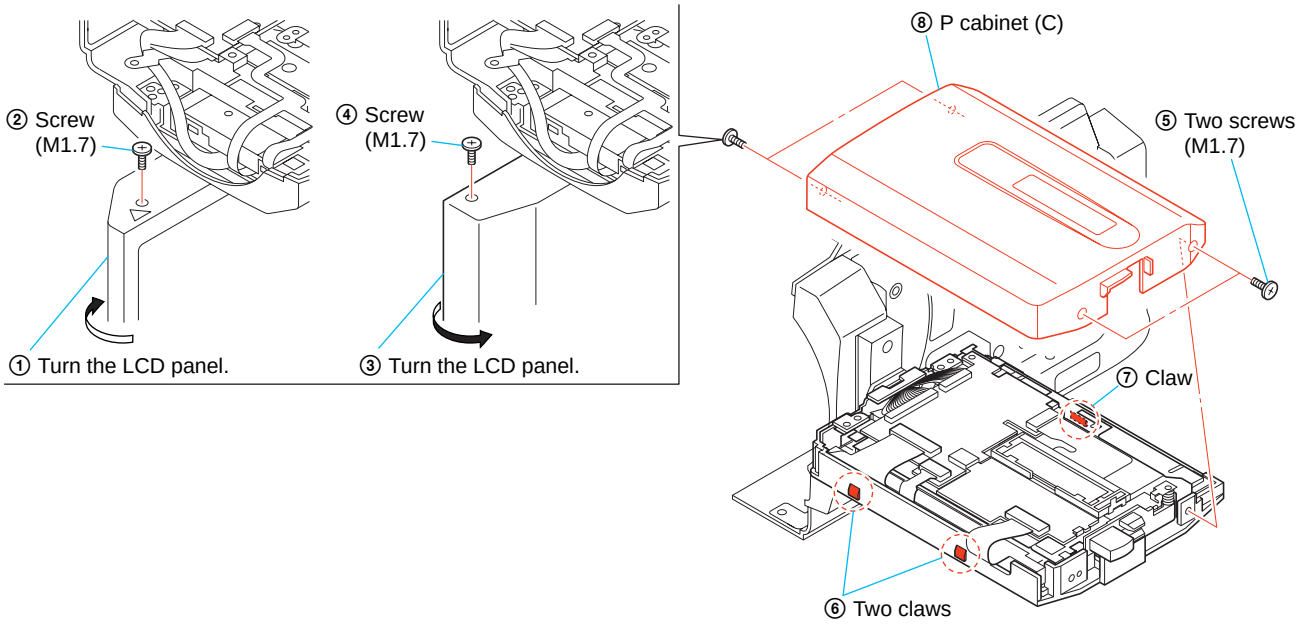

DCR-TRV940/TRV940E/TRV950/TRV950E
2-29. VF LENS ASSY (Page 2-20)
2-1. CABINET (R) BLOCK (Page 2-2)
2-2. P CABINET (C) (Page 2-2)
SERVICE POSITION TO CHECK PD-168 BOARD (Page 2-3)
2-3. LCD MODULE (Page 2-3)
DCR-TRV950/TRV950E
2-4. LCD BLOCK (Page 2-4)
2-6. CK-116 BOARD (Page 2-5)
2-7. F PANEL BLOCK (Page 2-5)
2-11. BATTERY PANEL BLOCK (Page 2-8)
2-12. BT-003 BOARD (Page 2-8)
2-5. FP-495 FLEXIBLE BOARD (Page 2-4)
SERVICE POSITION (MA-410 BOARD) (Page 2-6)
2-8. AF LASER BRACKET ASSEMBLY (Page 2-6)
2-13. ST FRAME BLOCK (Page 2-9)
2-10. FP-504 FLEXIBLE BOARD (Page 2-7)
2-9. MA-410 BOARD (Page 2-7)
2-15. MD BLOCK (Page 2-10)
2-14. DB-014 BOARD (Page 2-9)
2-26. GRIP CABINET BLOCK (Page 2-18)
2-24. CONTROL SWITCH BLOCK (PS-1870) (Page 2-17)
2-25. SE-132 BOARD (Page 2-17)
2-16. LENS BLOCK (Page 2-11)
2-27. CONTROL SWITCH BLOCK (CF-1870) (Page 2-19)
2-28. MS ASSEMBLY (Page 2-19)
2-19. STROBOSCOPE BLOCK (Page 2-12)
2-17. VC-288 BOARD (Page 2-11)
2-21. FLASH UNIT (Page 2-15)
2-22. EVF BLOCK (Page 2-15)
2-20. JK-222 BOARD (Page 2-13)
2-18. MECHANISM DECK (J200) (Page 2-12)
2-23. FP-497 FLEXIBLE BOARD (Page 2-16)
SERVICE POSITION TO CHECK THE CAMERA SECTION (Page 2-13)
SERVICE POSITION TO CHECK THE VTR SECTION (Page 2-14)

**Note:** Follow the disassembly procedure in the numerical order given.

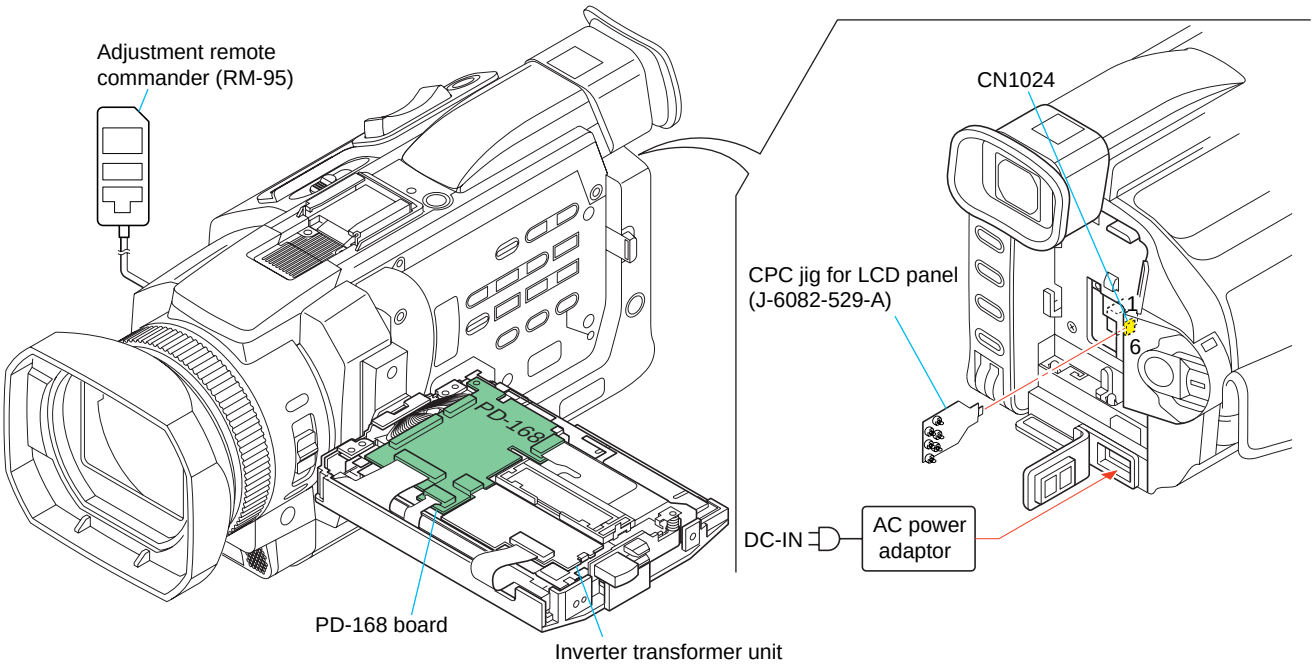
## 2-1. CABINET (R) BLOCK



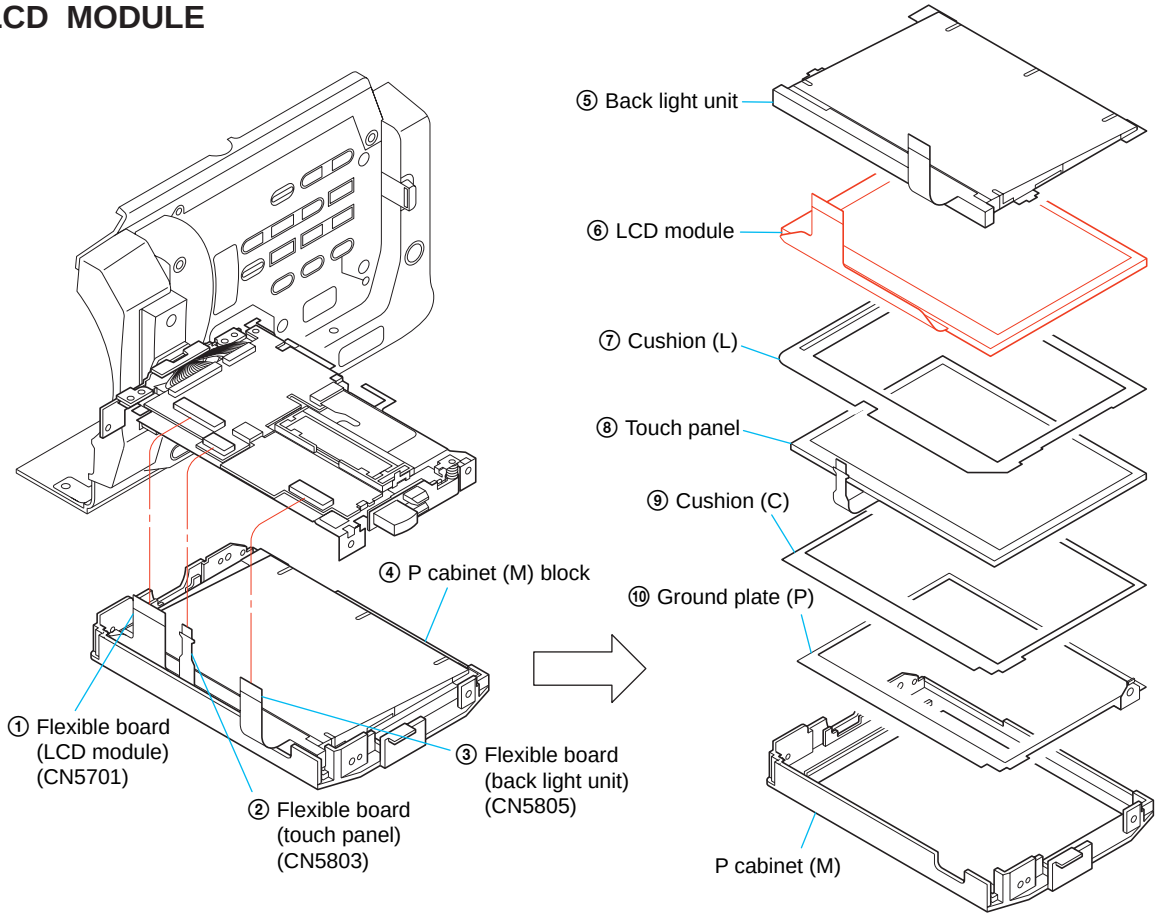

## 2-2. P CABINET (C)



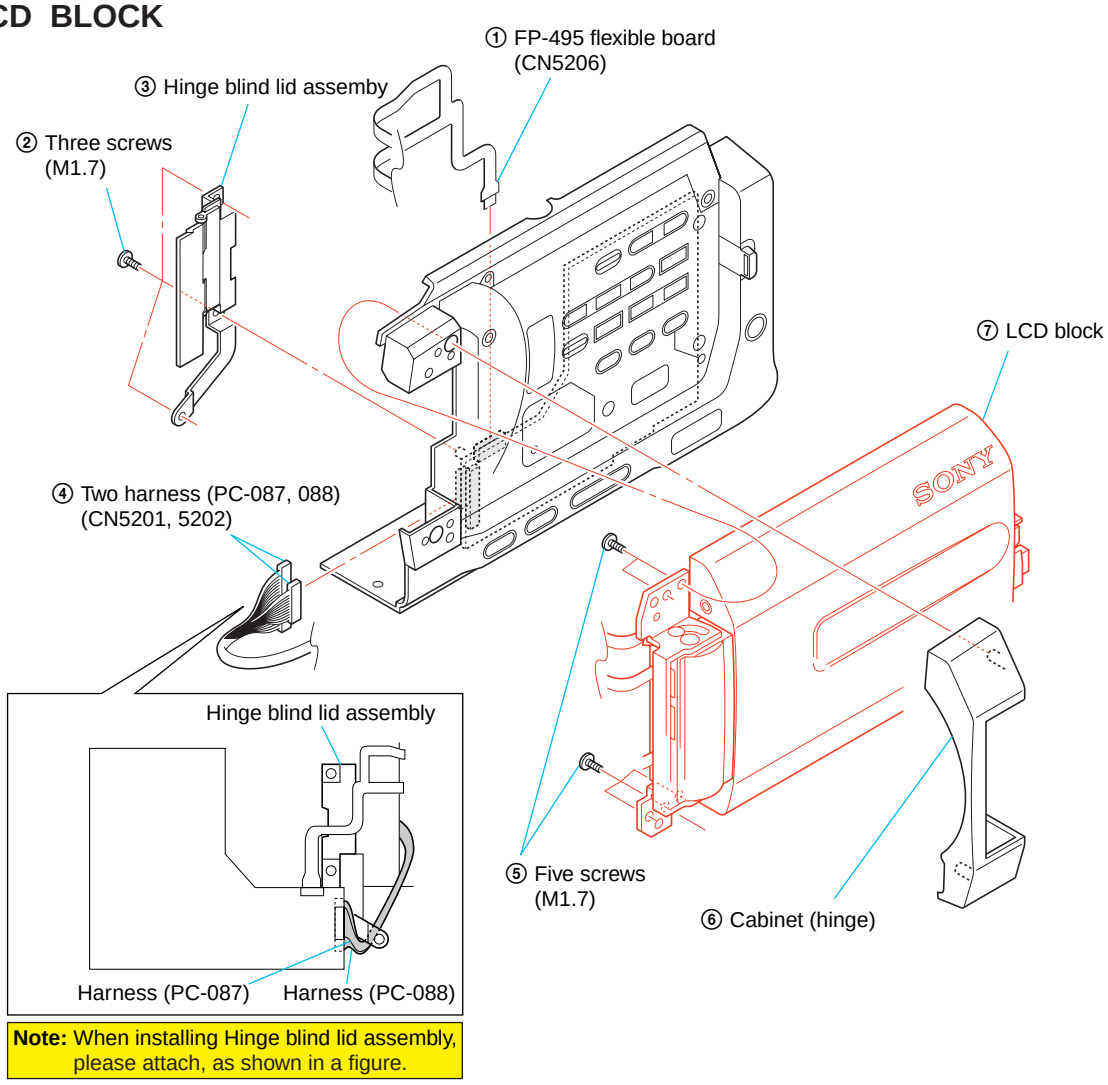
## [SERVICE POSITION TO CHECK PD-168 BOARD]




## 2-3. LCD MODULE

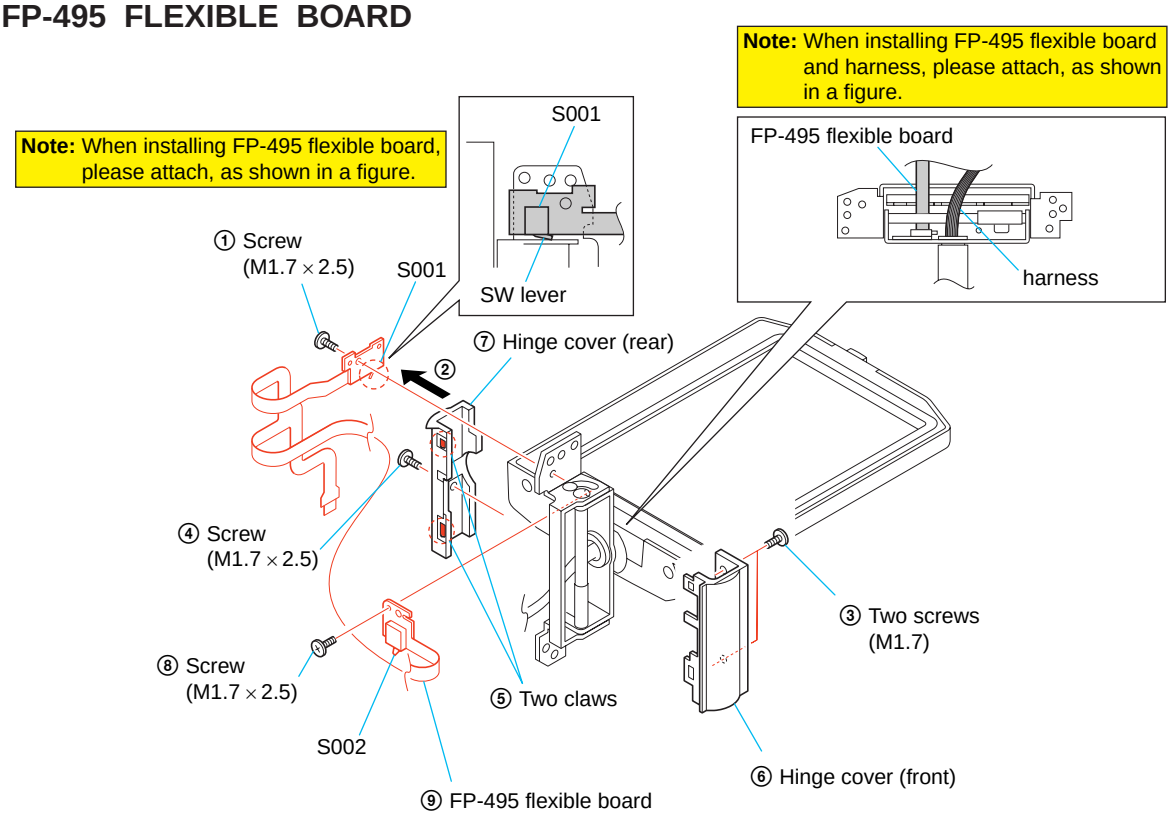

⑤ Back light unit
⑥ LCD module
⑦ Cushion (L)
⑧ Touch panel
⑨ Cushion (C)
⑩ Ground plate (P)
④ P cabinet (M) block
① Flexible board (LCD module) (CN5701)
② Flexible board (touch panel) (CN5803)
③ Flexible board (back light unit) (CN5805)
P cabinet (M)

## 2-4. LCD BLOCK

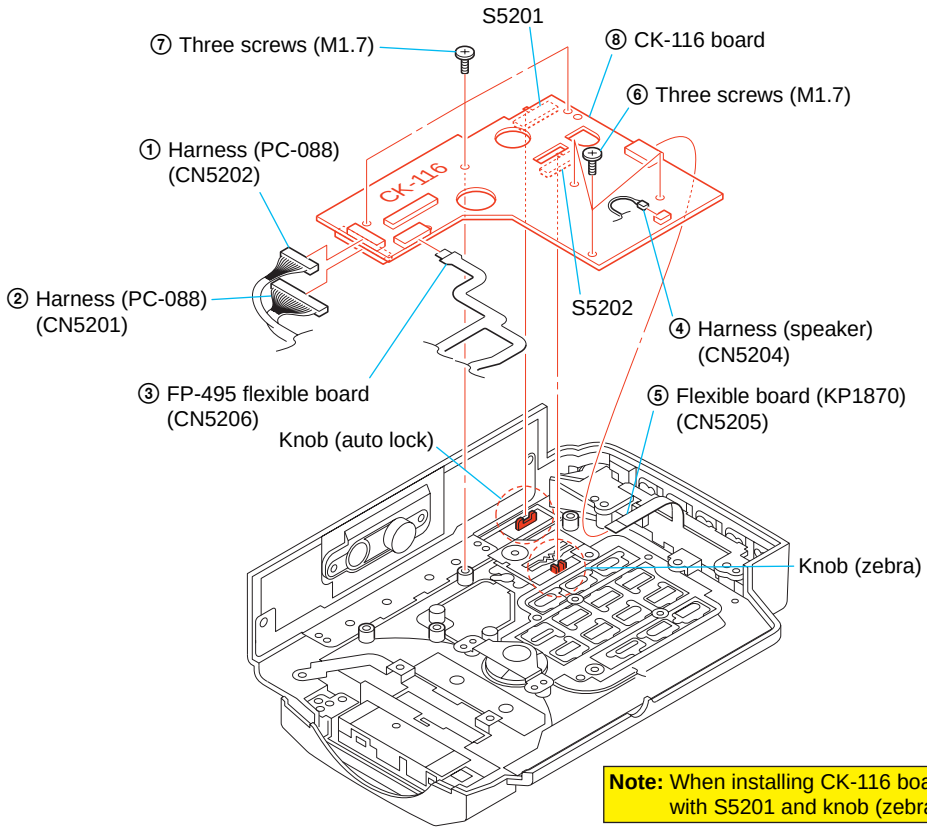



**Note:** When installing Hinge blind lid assembly, please attach, as shown in a figure.

## 2-5. FP-495 FLEXIBLE BOARD

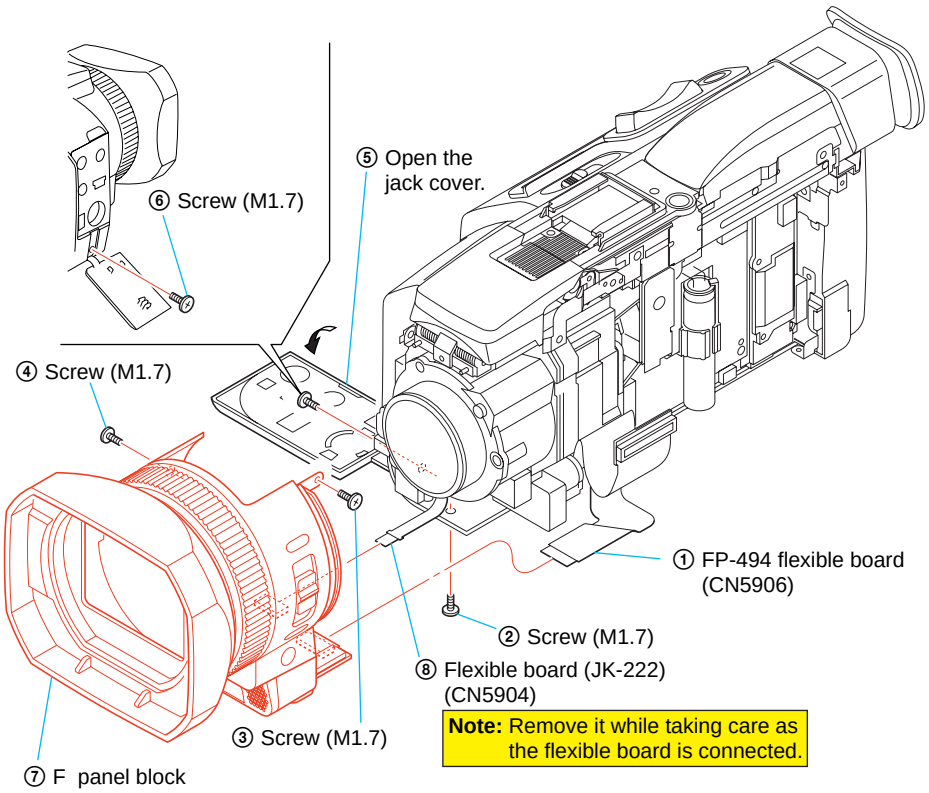

Note: When installing FP-495 flexible board and harness, please attach, as shown in a figure.
FP-495 flexible board
harness
Note: When installing FP-495 flexible board, please attach, as shown in a figure.
S001
SW lever
① Screw (M1.7 × 2.5)
S001
⑦ Hinge cover (rear)
②
④ Screw (M1.7 × 2.5)
③ Two screws (M1.7)
⑧ Screw (M1.7 × 2.5)
⑤ Two claws
S002
⑥ Hinge cover (front)
⑨ FP-495 flexible board

## 2-6. CK-116 BOARD



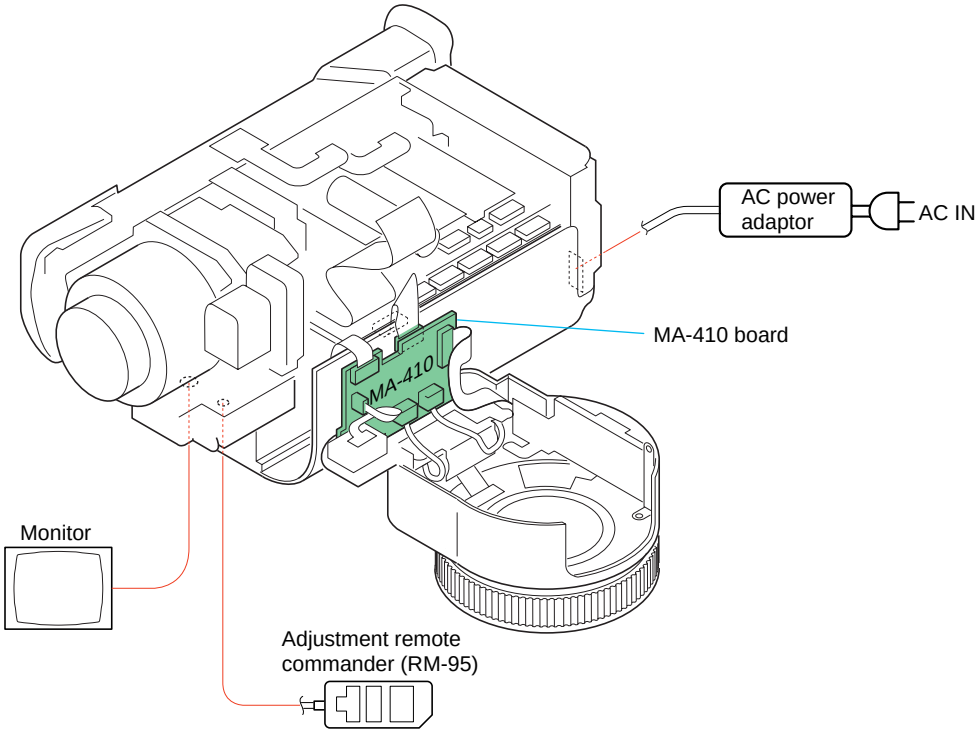

**Note:** When installing CK-116 board, connect knob (auto lock) with S5201 and knob (zebra) with S5202.

## 2-7. F PANEL BLOCK

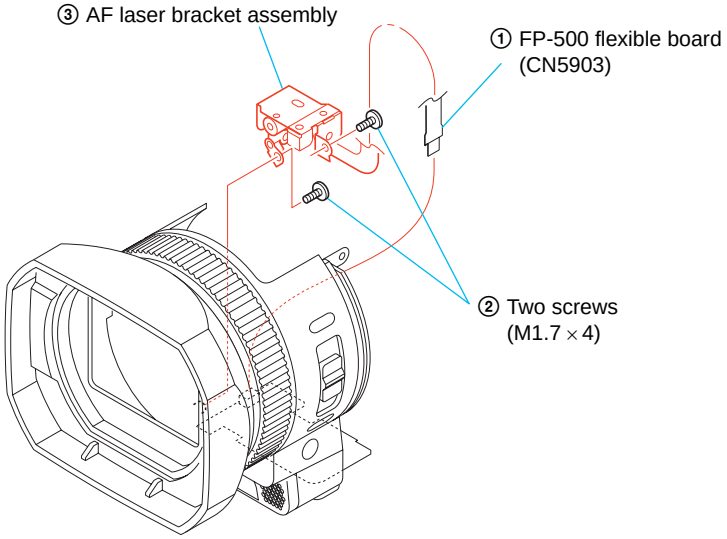



**Note:** Remove it while taking care as the flexible board is connected.

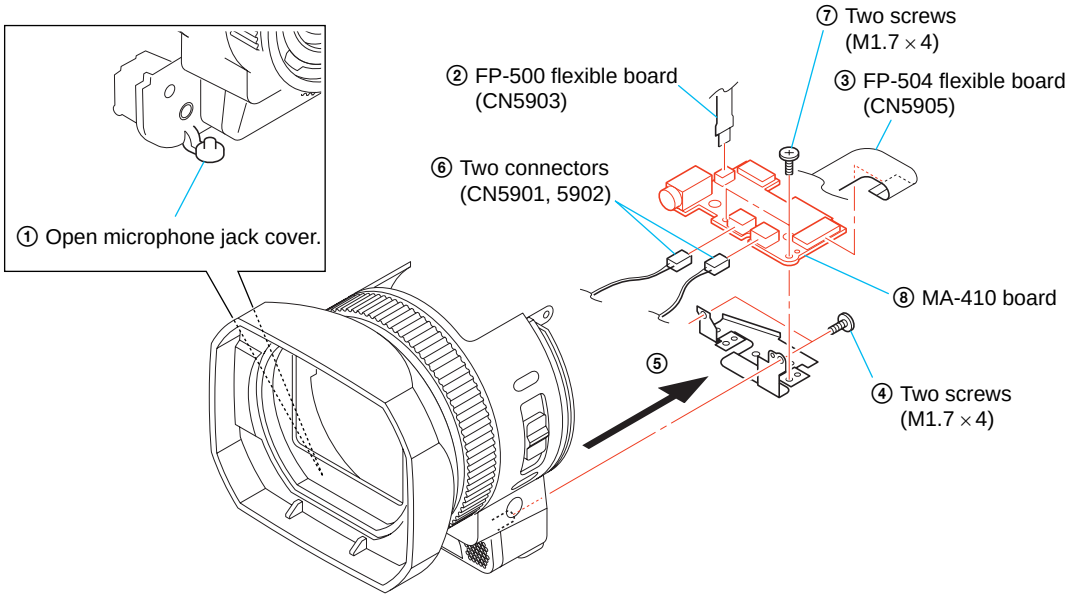
## [SERVICE POSITION TO CHECK MA-410 BOARD]



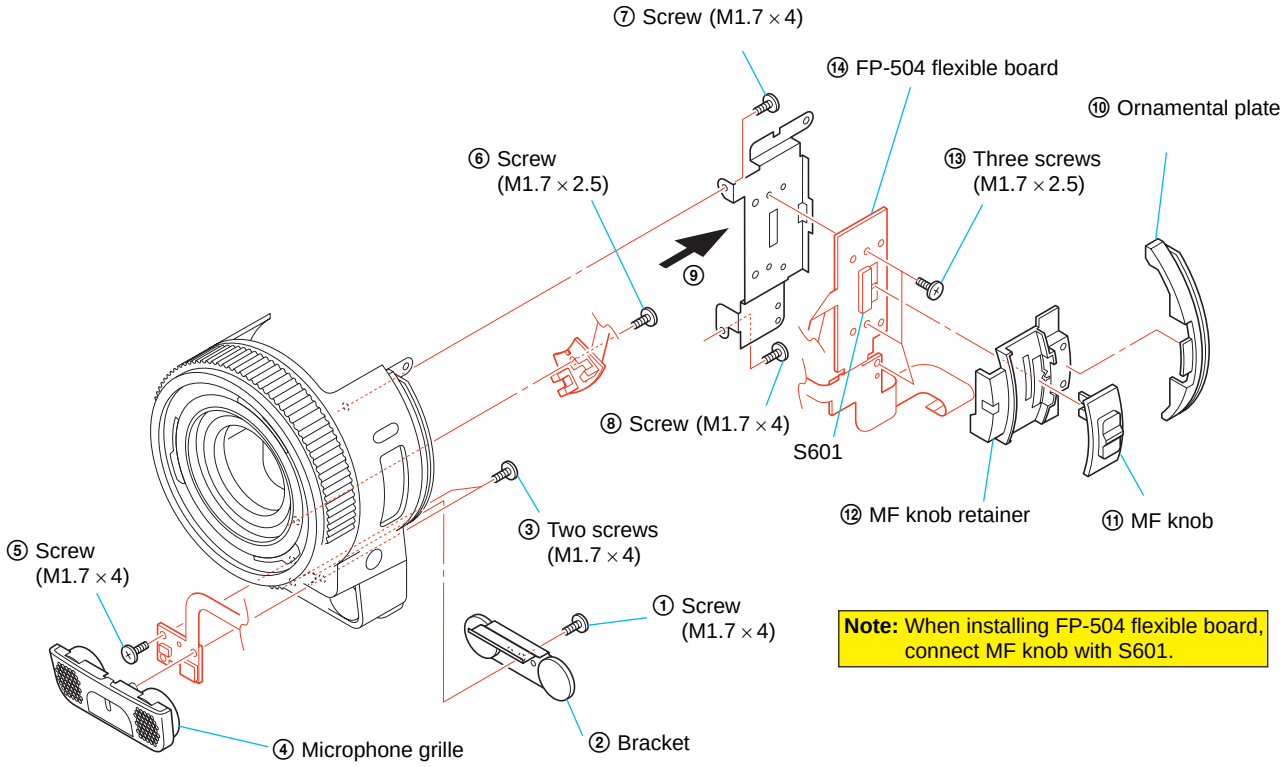

## 2-8. AF LASER BRACKET ASSEMBLY



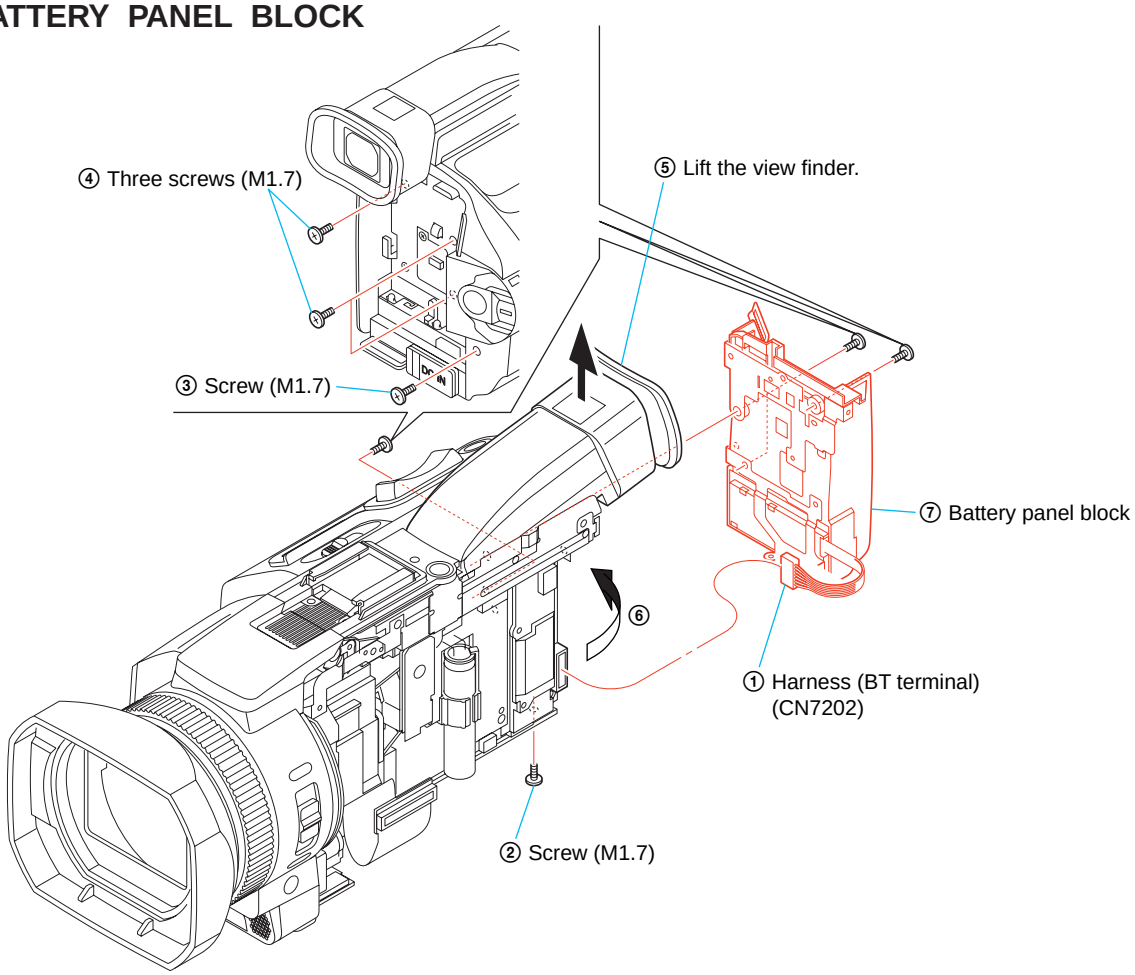
## 2-9. MA-410 BOARD



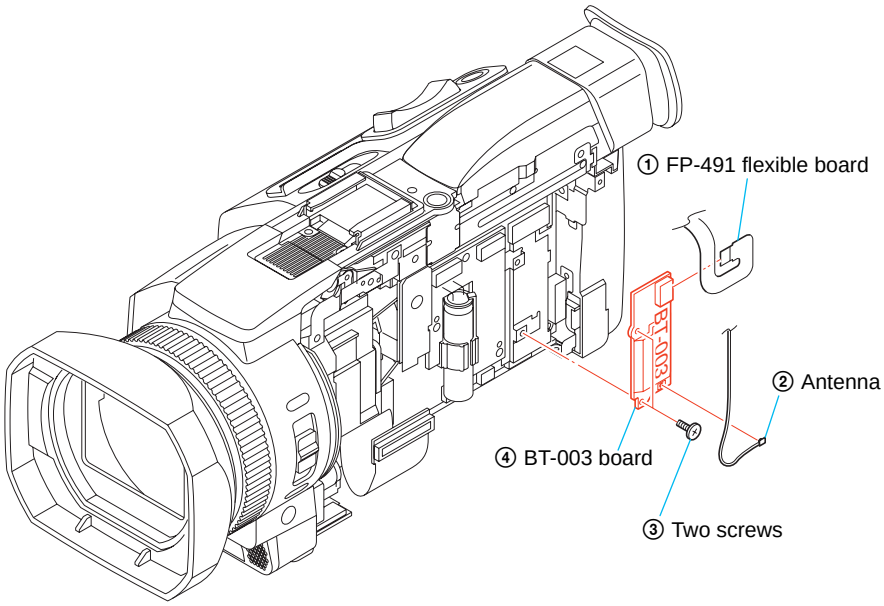

## 2-10. FP-504 FLEXIBLE BOARD



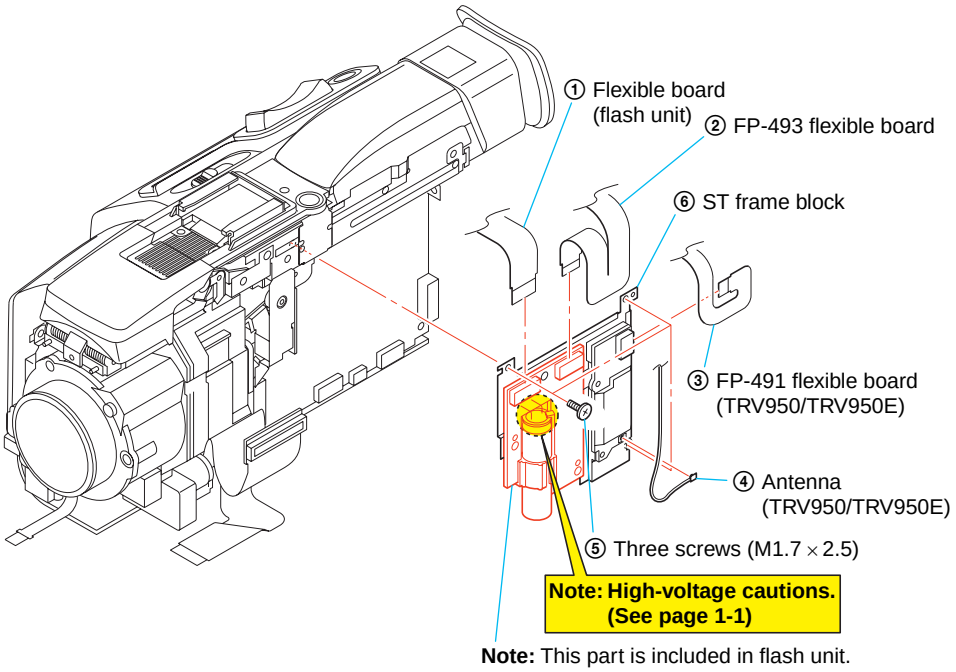
## 2-11. BATTERY PANEL BLOCK



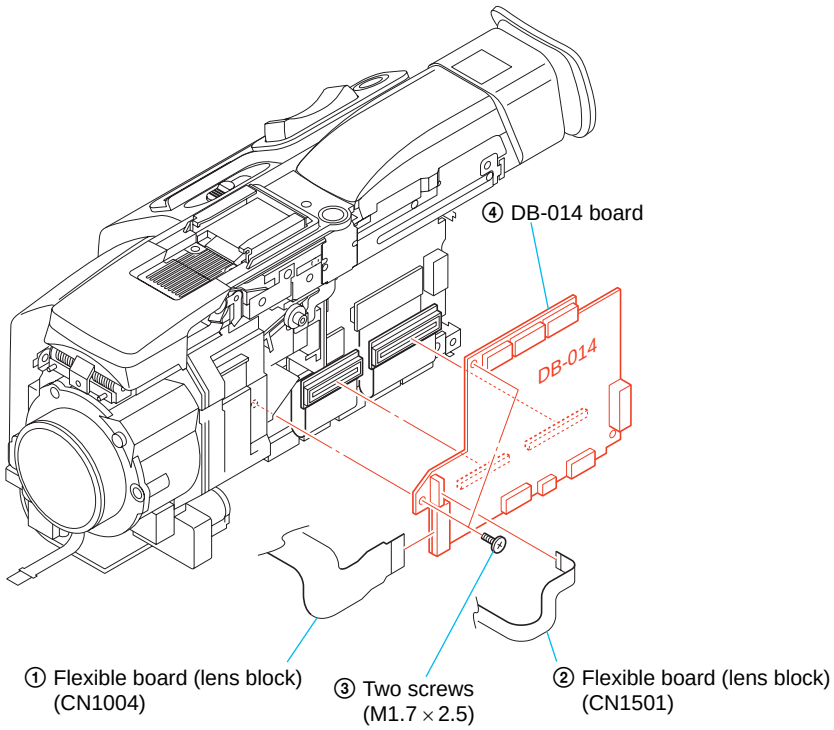

## 2-12. BT-003 BOARD (TRV950/TRV950E)



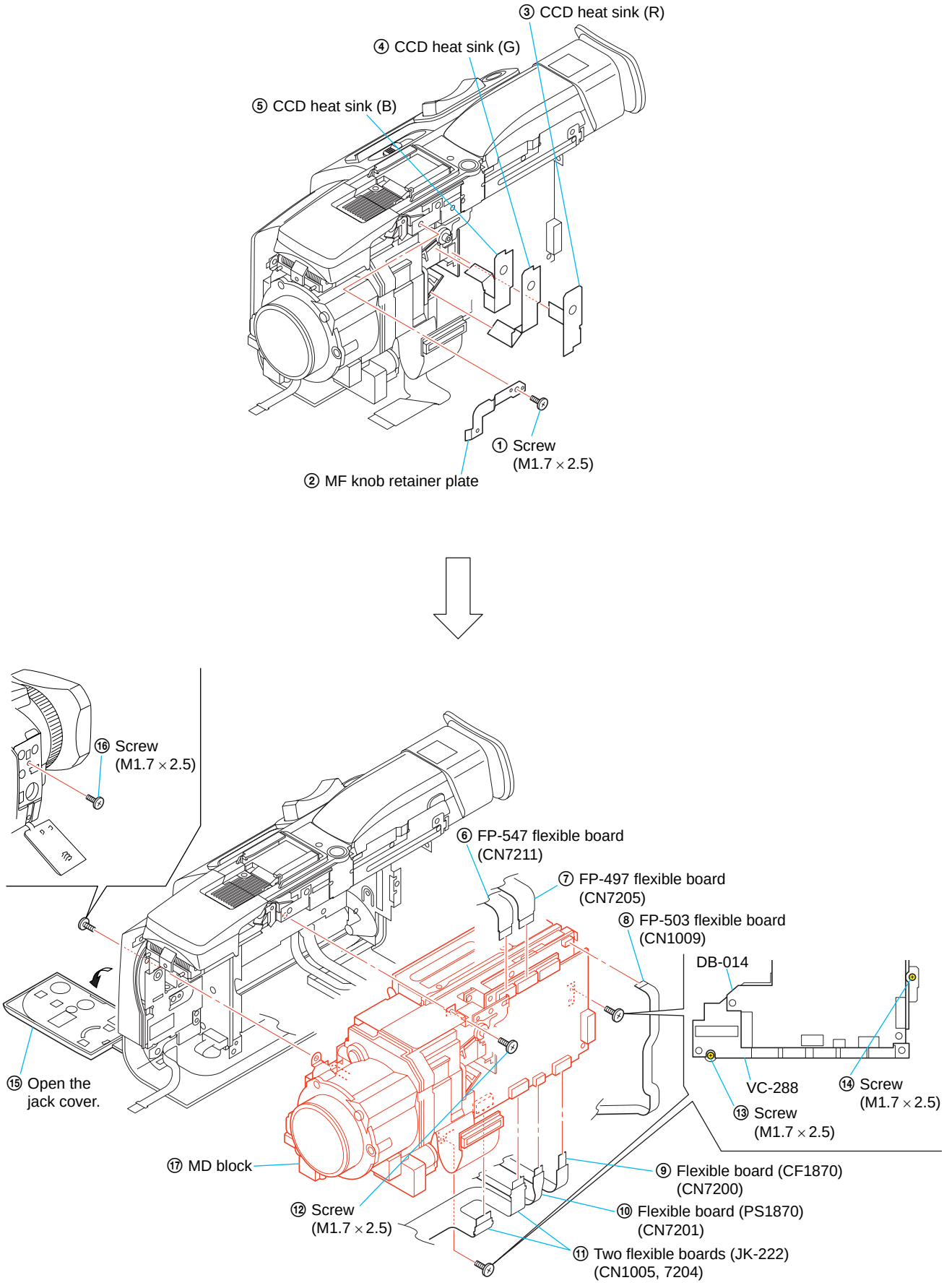
## 2-13. ST FRAME BLOCK


① Flexible board (flash unit)
② FP-493 flexible board
⑥ ST frame block
③ FP-491 flexible board (TRV950/TRV950E)
④ Antenna (TRV950/TRV950E)
⑤ Three screws (M1.7 × 2.5)
Note: High-voltage cautions. (See page 1-1)
Note: This part is included in flash unit.

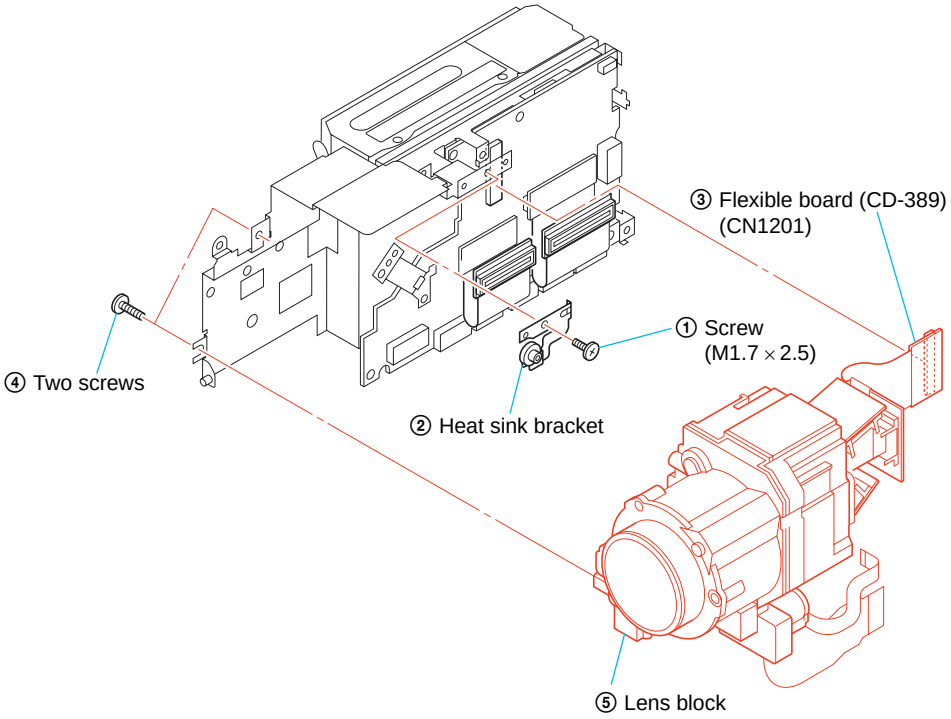
## 2-14. DB-014 BOARD



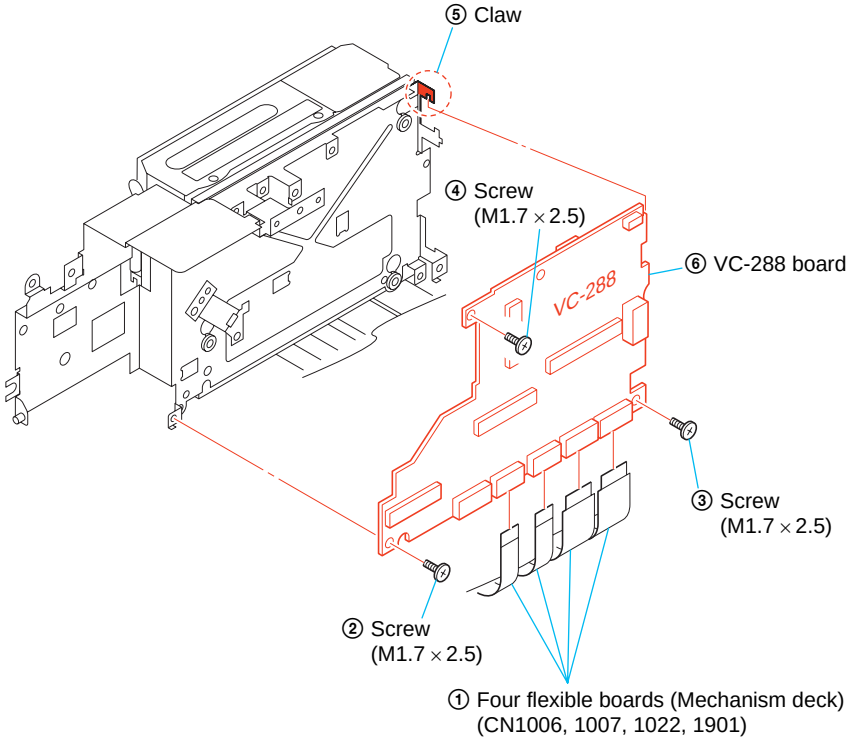
## 2-15. MD BLOCK


③ CCD heat sink (R)
④ CCD heat sink (G)
⑤ CCD heat sink (B)
① Screw (M1.7 × 2.5)
② MF knob retainer plate
⑯ Screw (M1.7 × 2.5)
⑥ FP-547 flexible board (CN7211)
⑦ FP-497 flexible board (CN7205)
⑧ FP-503 flexible board (CN1009)
DB-014
VC-288
⑭ Screw (M1.7 × 2.5)
⑬ Screw (M1.7 × 2.5)
⑮ Open the jack cover.
⑰ MD block
⑨ Flexible board (CF1870) (CN7200)
⑫ Screw (M1.7 × 2.5)
⑩ Flexible board (PS1870) (CN7201)
⑪ Two flexible boards (JK-222) (CN1005, 7204)

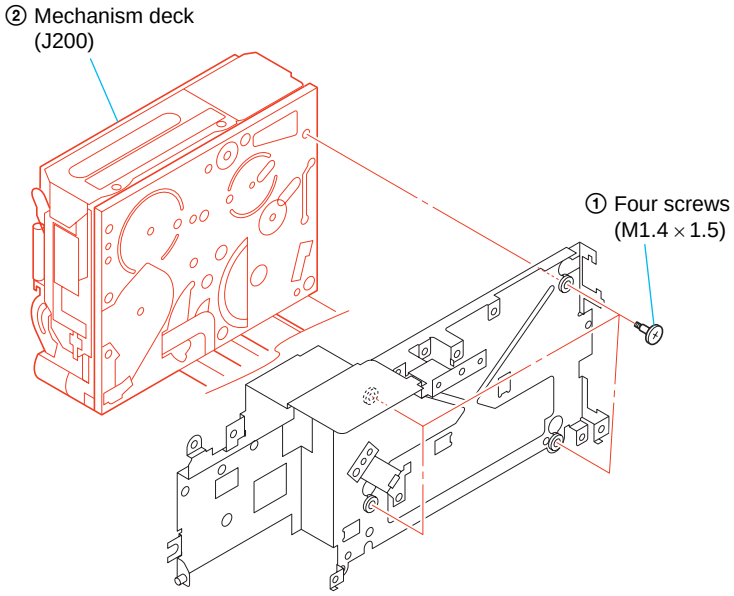
## 2-16. LENS BLOCK



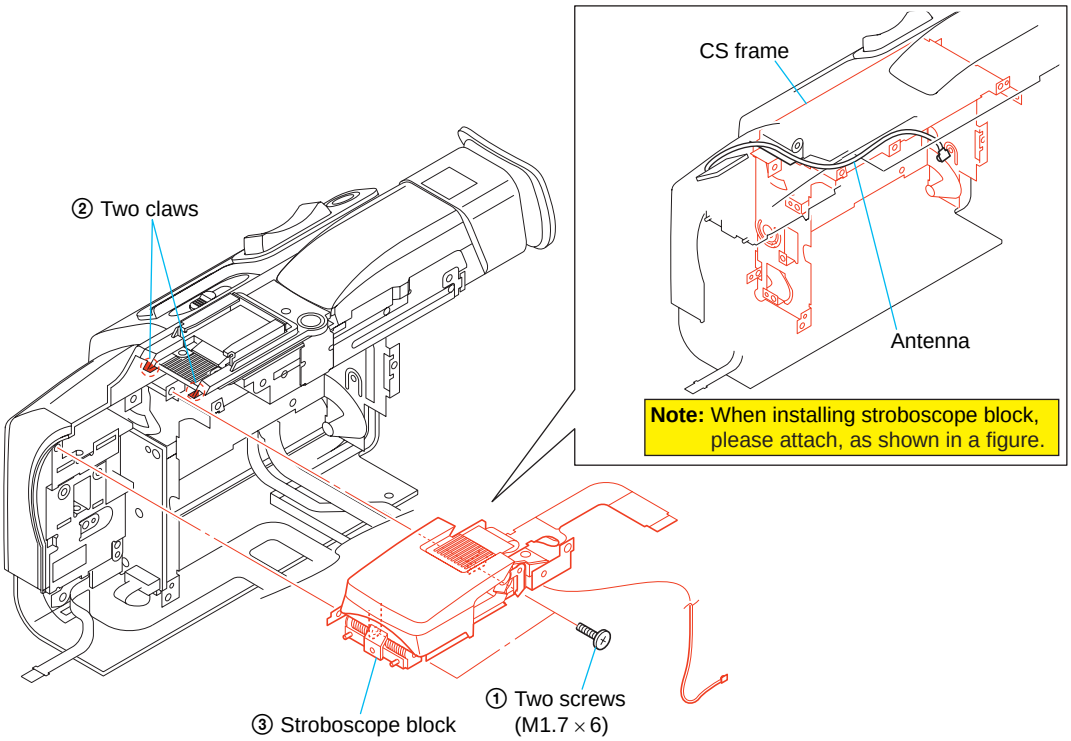

## 2-17. VC-288 BOARD



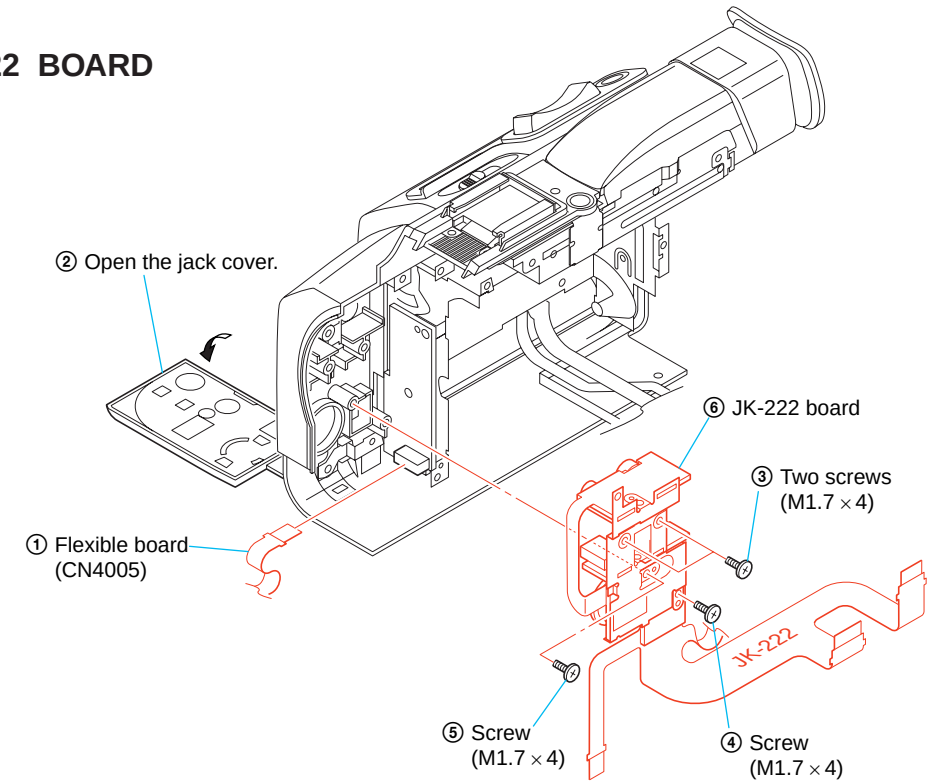
## 2-18. MECHANISM DECK (J200)




## 2-19. STROBOSCOPE BLOCK



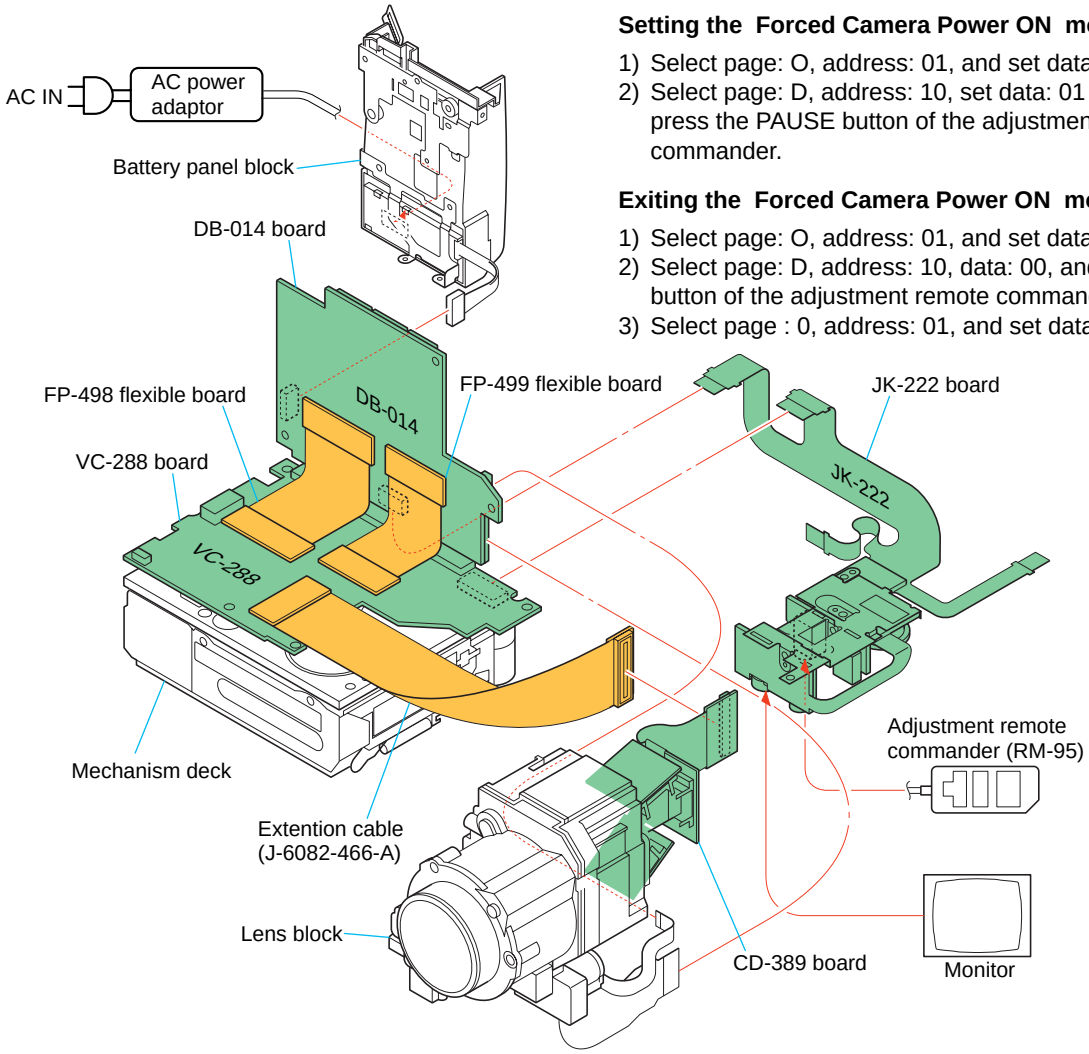
## 2-20. JK-222 BOARD




## [SERVICE POSITION TO CHECK THE CAMERA SECTION]

### Connection to Check the Camera Section

To check the camera section, set the camera to the Forced camera power ON mode.
Operate the camera functions of the zoom and focus using the adjustment remote commander (with the HOLD switch set in the OFF position).




**Setting the Forced Camera Power ON mode**

1) Select page: O, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 01 and press the PAUSE button of the adjustment remote commander.

**Exiting the Forced Camera Power ON mode**

1) Select page: O, address: 01, and set data: 01.
2) Select page: D, address: 10, data: 00, and press the PAUSE button of the adjustment remote commander.
3) Select page : 0, address: 01, and set data: 00.

## [SERVICE POSITION TO CHECK THE VTR SECTION]

### Connection to Check the VTR Section

To check the VTR section, set the VTR to the Forced VTR power ON mode. (Or, connect the control switch block (PS-1870) to the CN7201 of DB-014 board and set the power switch to the VIDEO position.)
Operate the VTR function using the adjustment remote commander (with the HOLD switch set in the OFF position).

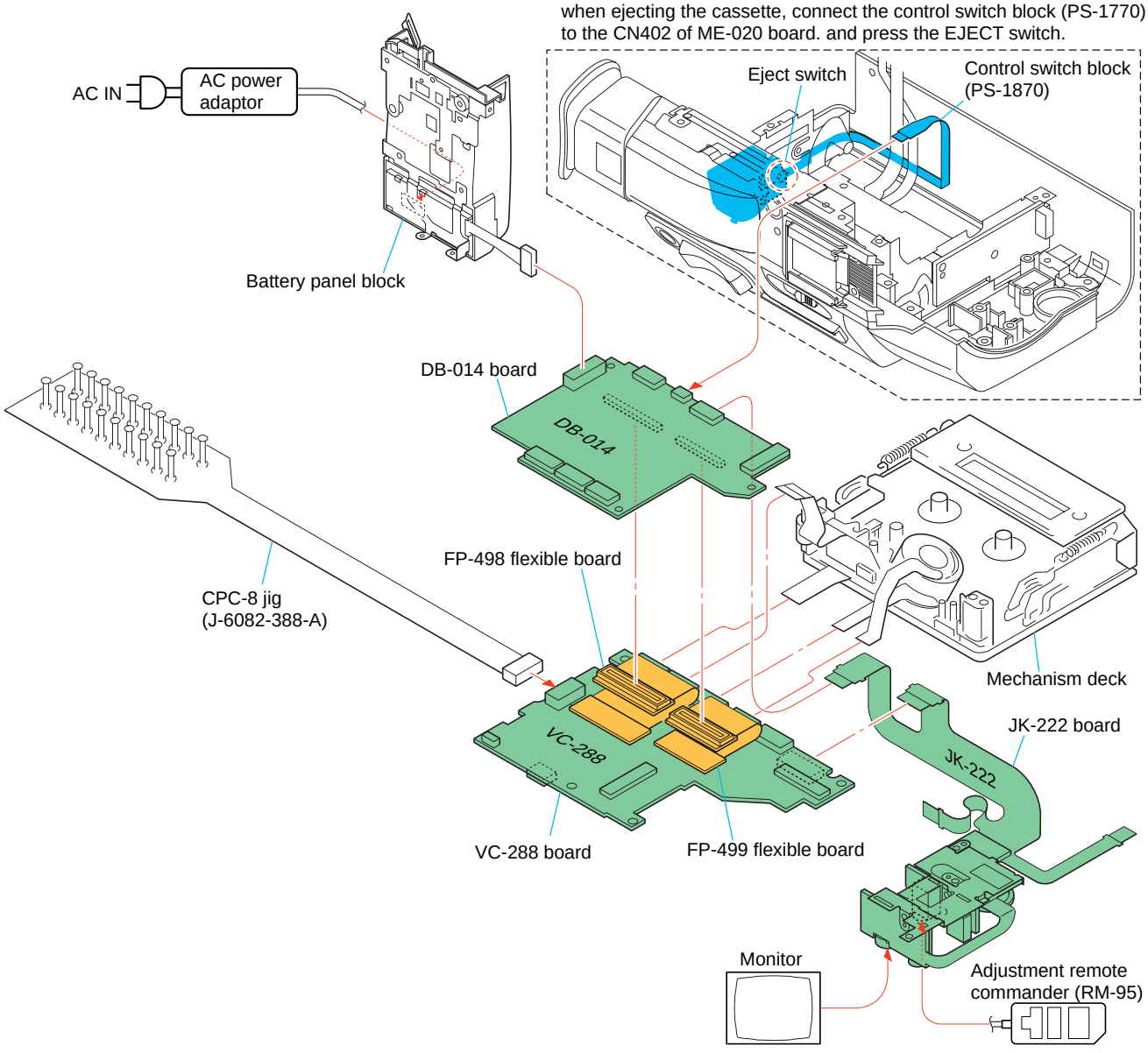
**Setting the Forced VTR Power ON mode**

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 02 and press the PAUSE button of the adjustment remote commander.

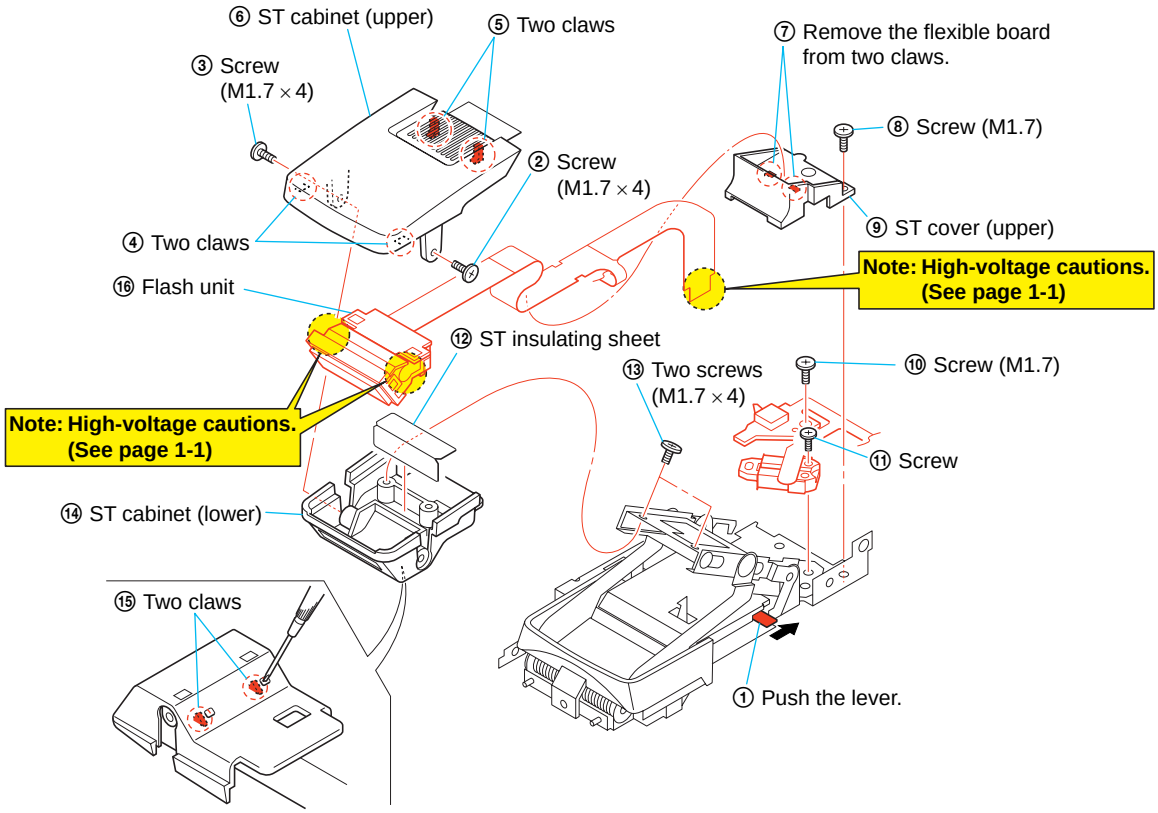
**Exiting the Forced VTR Power ON mode**

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, data: 00, and press the PAUSE button of the adjustment remote commander.
3) Select page: 0, address: 01, and set data: 00.

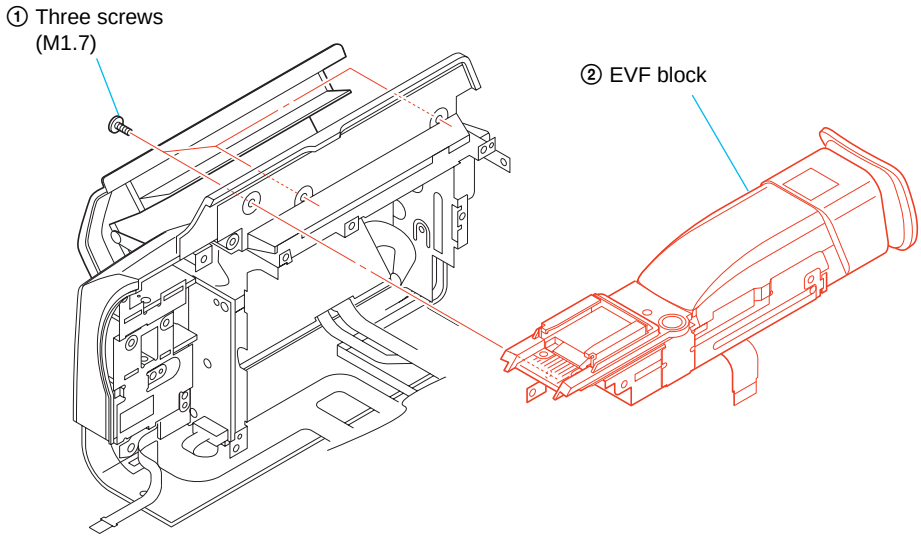
When exiting the Forced VTR Power ON mode, connect the control switch block (PS-1870) to the CN7201 of DB-014 board. Or, when ejecting the cassette, connect the control switch block (PS-1770) to the CN402 of ME-020 board. and press the EJECT switch.



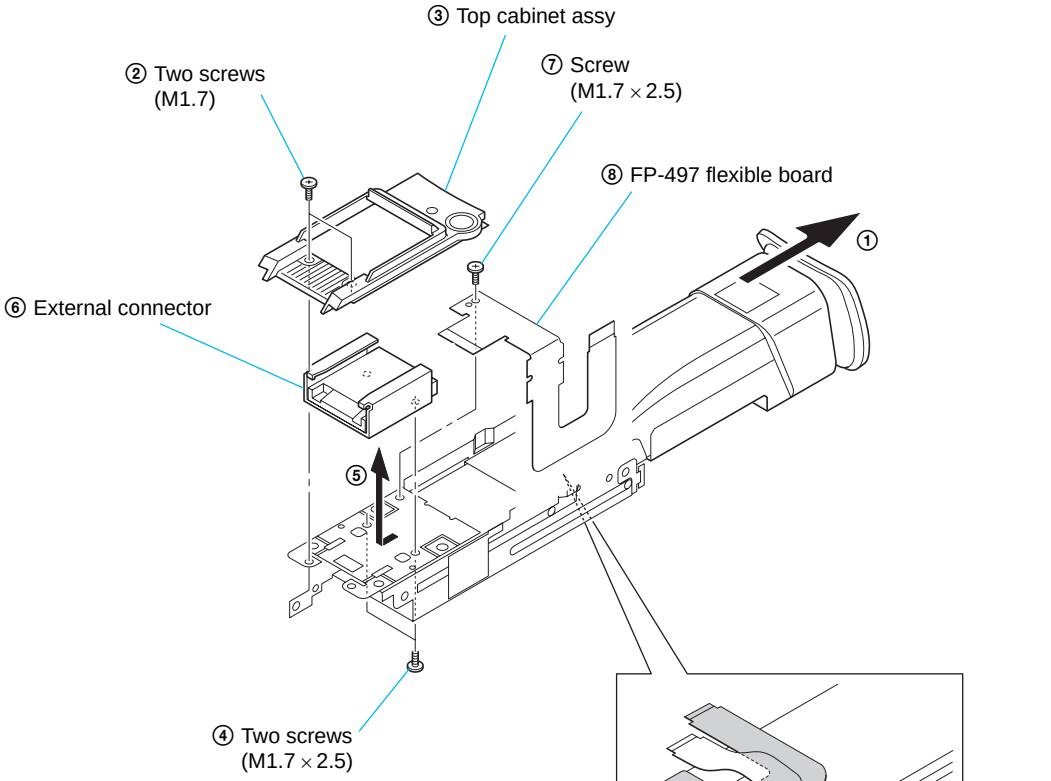
## 2-21. FLASH UNIT


⑥ ST cabinet (upper)
⑤ Two claws
⑦ Remove the flexible board from two claws.
③ Screw (M1.7 × 4)
⑧ Screw (M1.7)
② Screw (M1.7 × 4)
⑨ ST cover (upper)
④ Two claws
Note: High-voltage cautions. (See page 1-1)
⑯ Flash unit
⑫ ST insulating sheet
⑩ Screw (M1.7)
⑬ Two screws (M1.7 × 4)
Note: High-voltage cautions. (See page 1-1)
⑪ Screw
⑭ ST cabinet (lower)
⑮ Two claws
① Push the lever.

## 2-22. EVF BLOCK

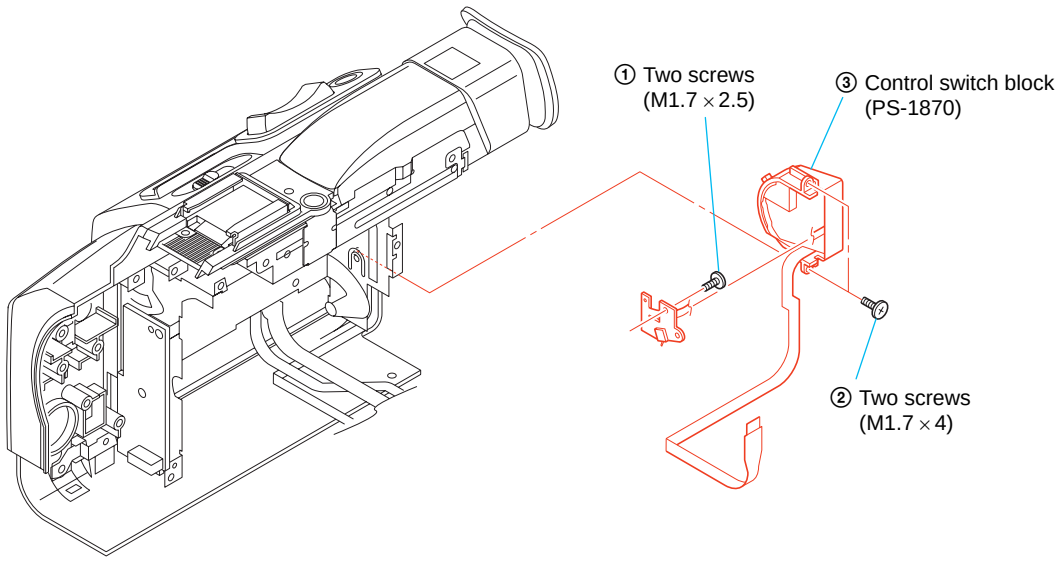


## 2-23. FP-497 FLEXIBLE BOARD

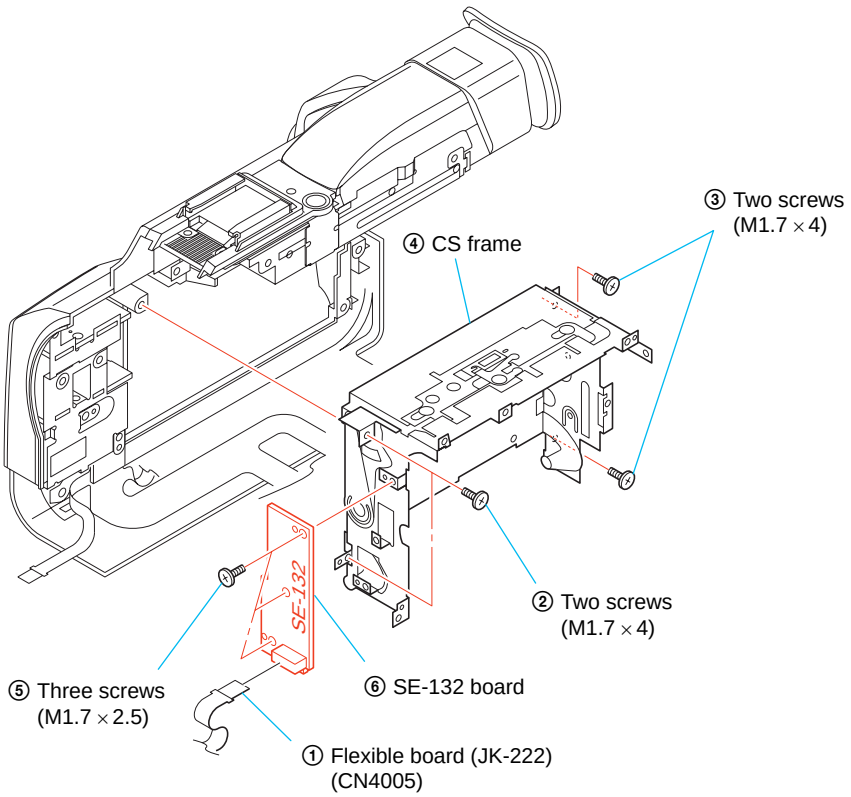



**Note:** When installing FP-497 flexible board and FP-547 flexible board, please attach, as shown in a figure.

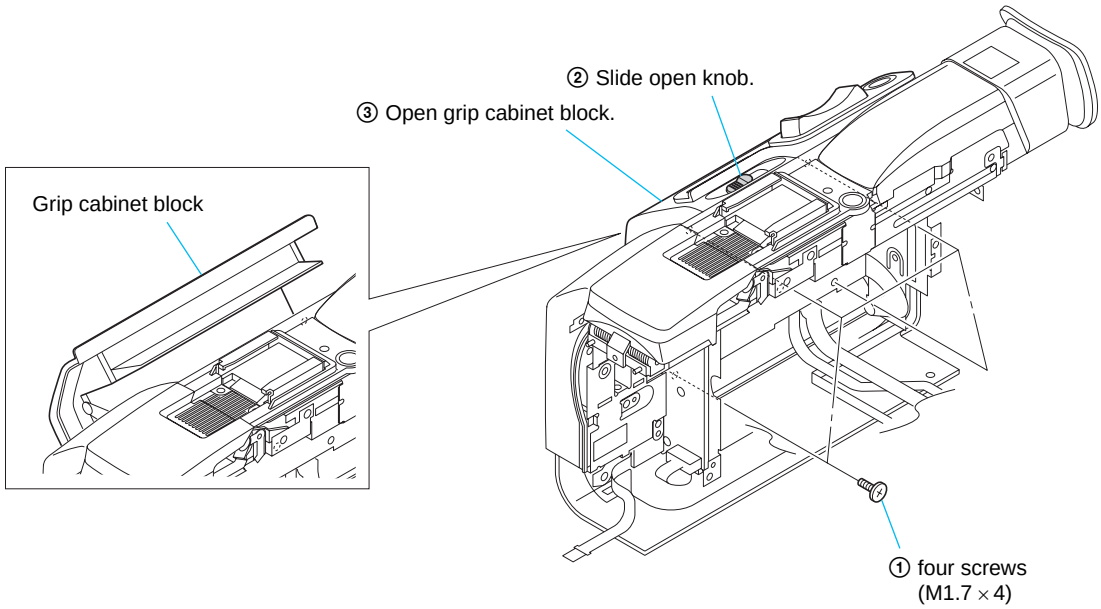
## 2-24. CONTROL SWITCH BLOCK (PS-1870)

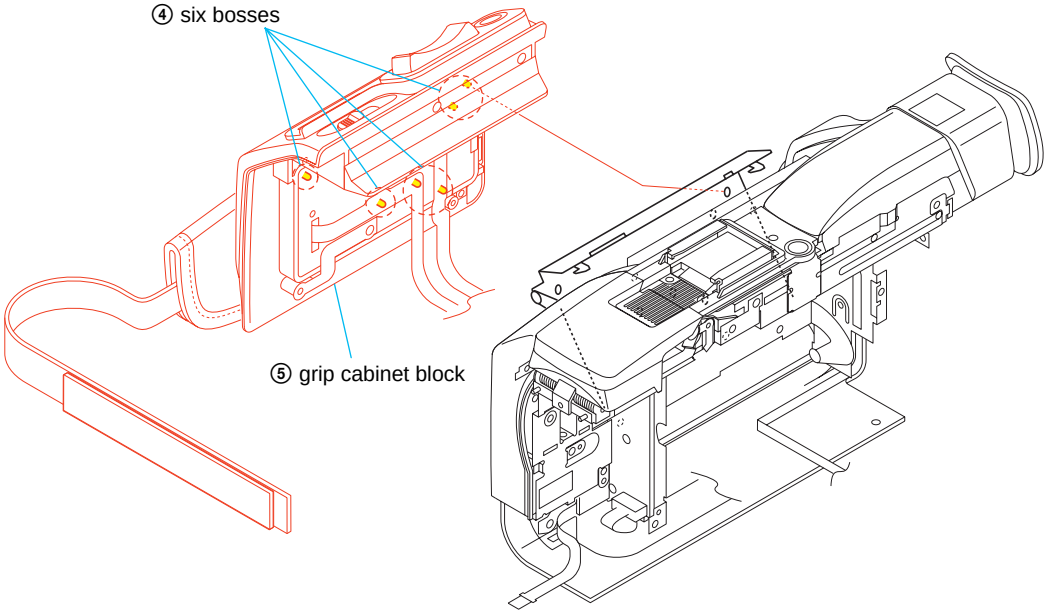



## 2-25. SE-132 BOARD

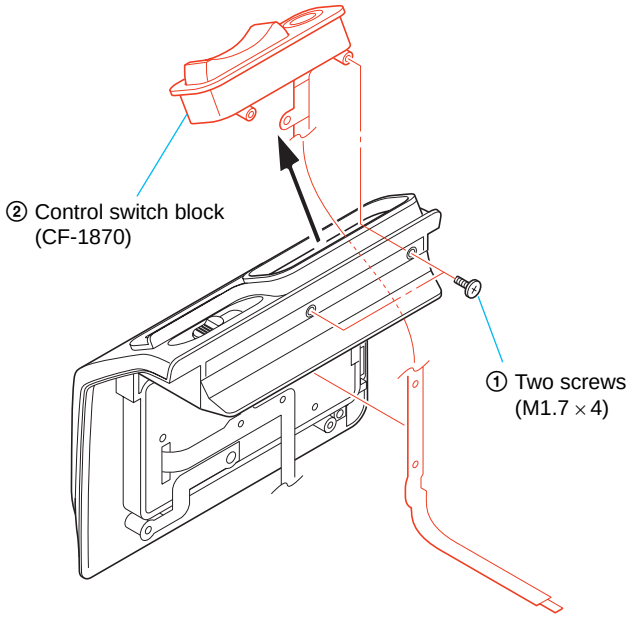


## 2-26. GRIP CABINET BLOCK

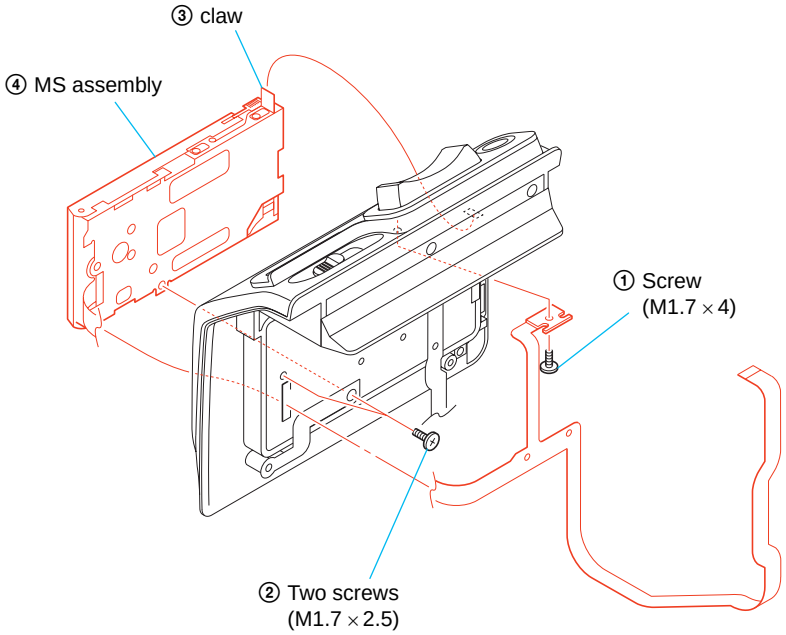


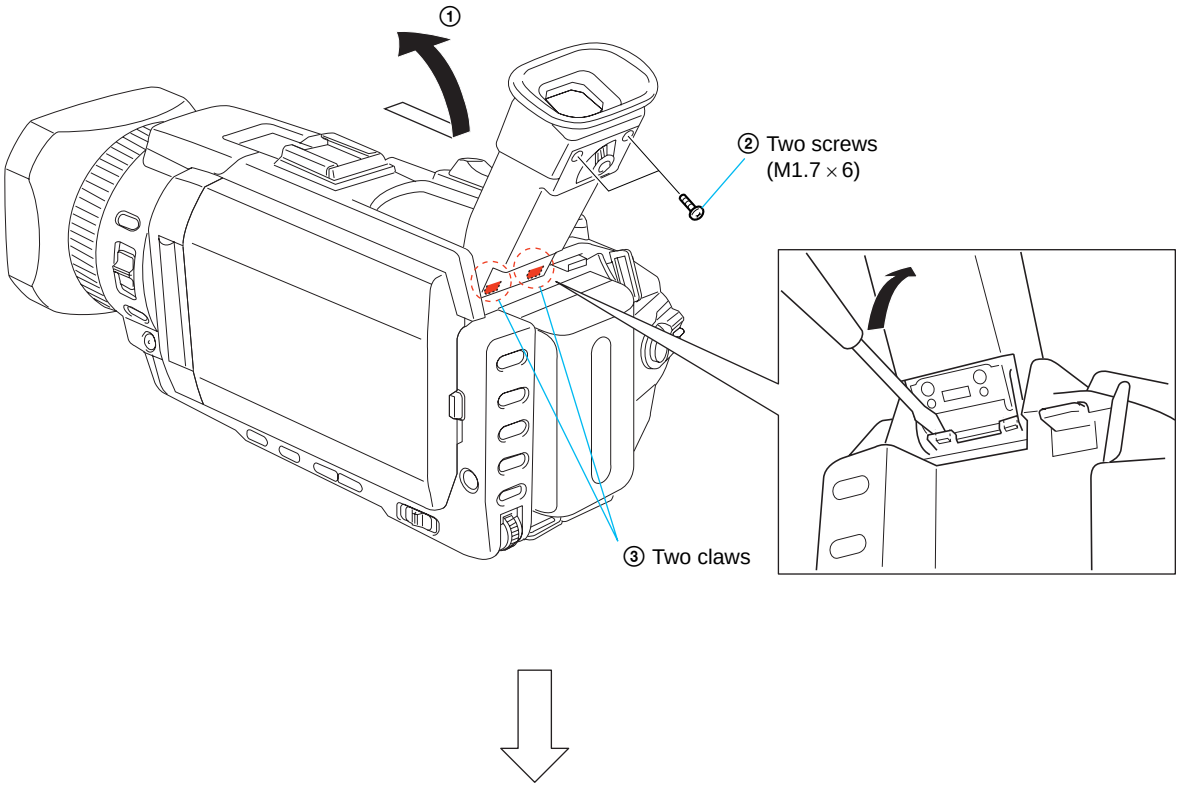
## 2-27. CONTROL SWITCH BLOCK (CF-1870)

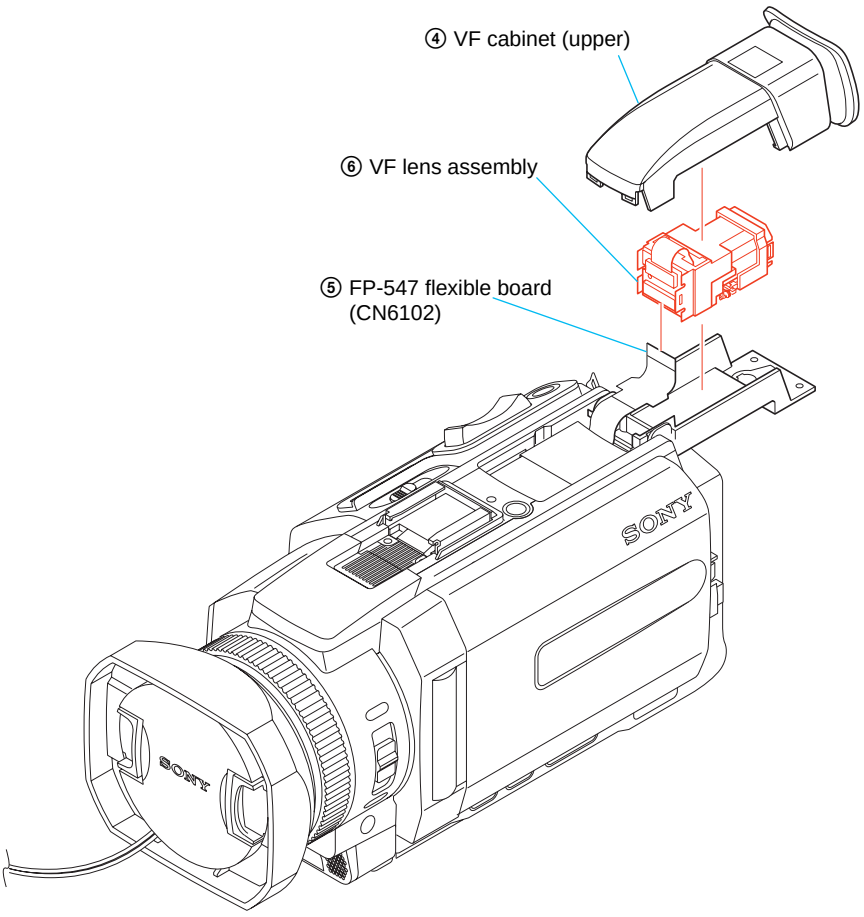



## 2-28. MS ASSEMBLY

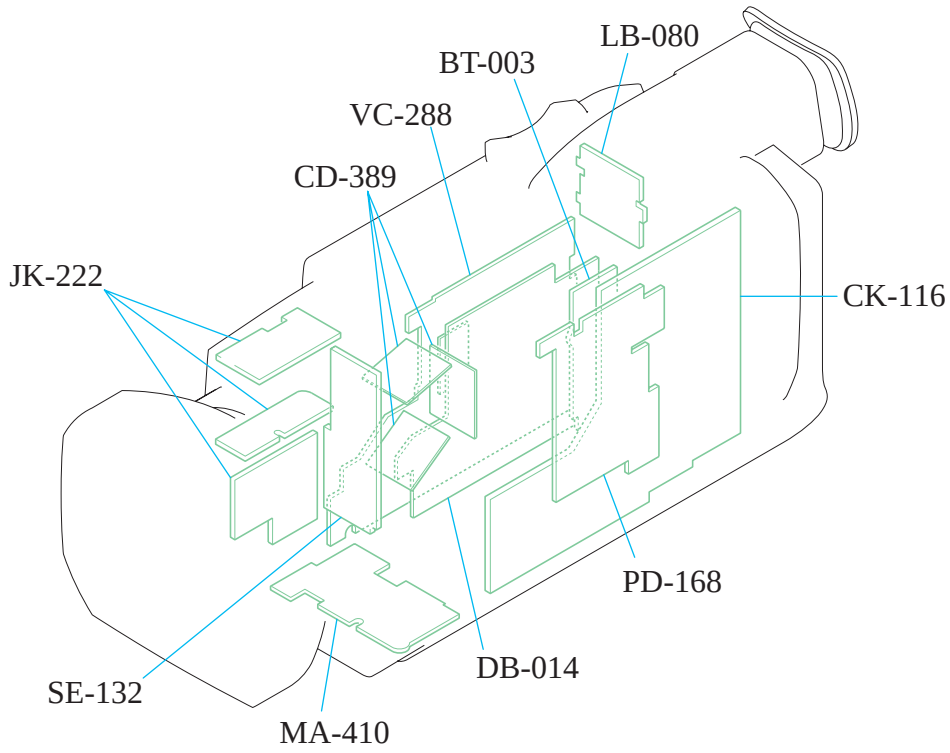


## 2-29. VF LENS ASSEMBLY



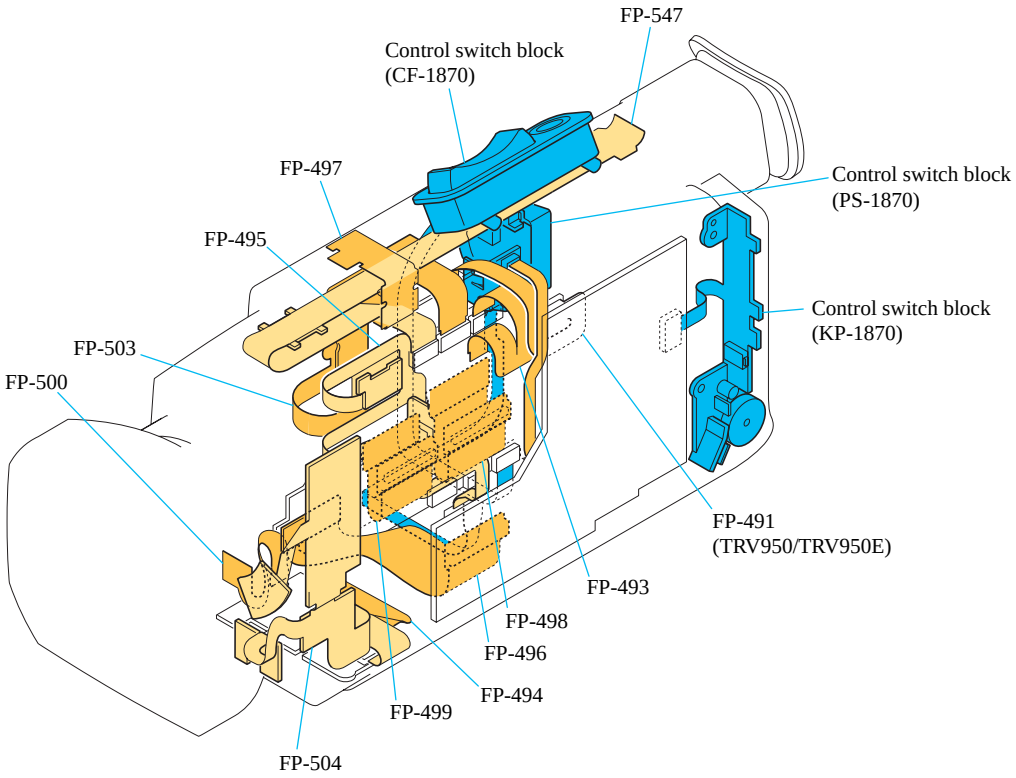



## 2-30. CIRCUIT BOARDS LOCATION




| Board Name | Function |
|---|---|
| BT-003<br>(TRV950/TRV950E) | BLUE TOOTH<br>(BT-003 board is only replaced as a mounted board.<br>Therefor, schematic diagrams and printed wiring boards are not shown.) |
| CD-389 | CCD IMAGER |
| CK-116 | CONTROL SWITCH |
| DB-014 | LENS MOTOR DRIVE, VAP DRIVER, MIC VOL, AUDIO PROCESS, VIDEO IN/OUT, EVF DRIVE, TIMING GENERATOR, CONNECTOR, DC/DC CONTROL |
| JK-222 | AV IN/OUT, DV/USB CONNECTOR |
| LB-080 | EVF, EVF BACK LIGHT |
| MA-410 | MIC AMP, AF LASER CONTROL |
| PD-168 | LCD DRIVER TIMING GENERATOR, BACK LIGHT |
| SE-132 | PITCH/YAW SENSOR |
| VC-288 | A/D CONVERTER, TIMING GENERATOR, CAMERA RGB PROCESS, CAMERA PROCESS, MPEG MOVIE/DIGITAL STILL PROCESS, HI CONTROL, DIGITAL STILL CONTROL, FLASH MEMORY, SDRAM, DV SIGNAL PROCESS, DV INTERFACE, REC/PB AMP, USB INTERFACE, VIDEO A/D CONVERTER, DRUM/CAPSTAN/LOADING DRIVE, CAMERA/MECHA CONTROL, HI CONTROL, LANC, RESET, BEEP, AFLD, CONNECTOR, EVR |

## 2-31. FLEXIBLE BOARDS LOCATION



COVER

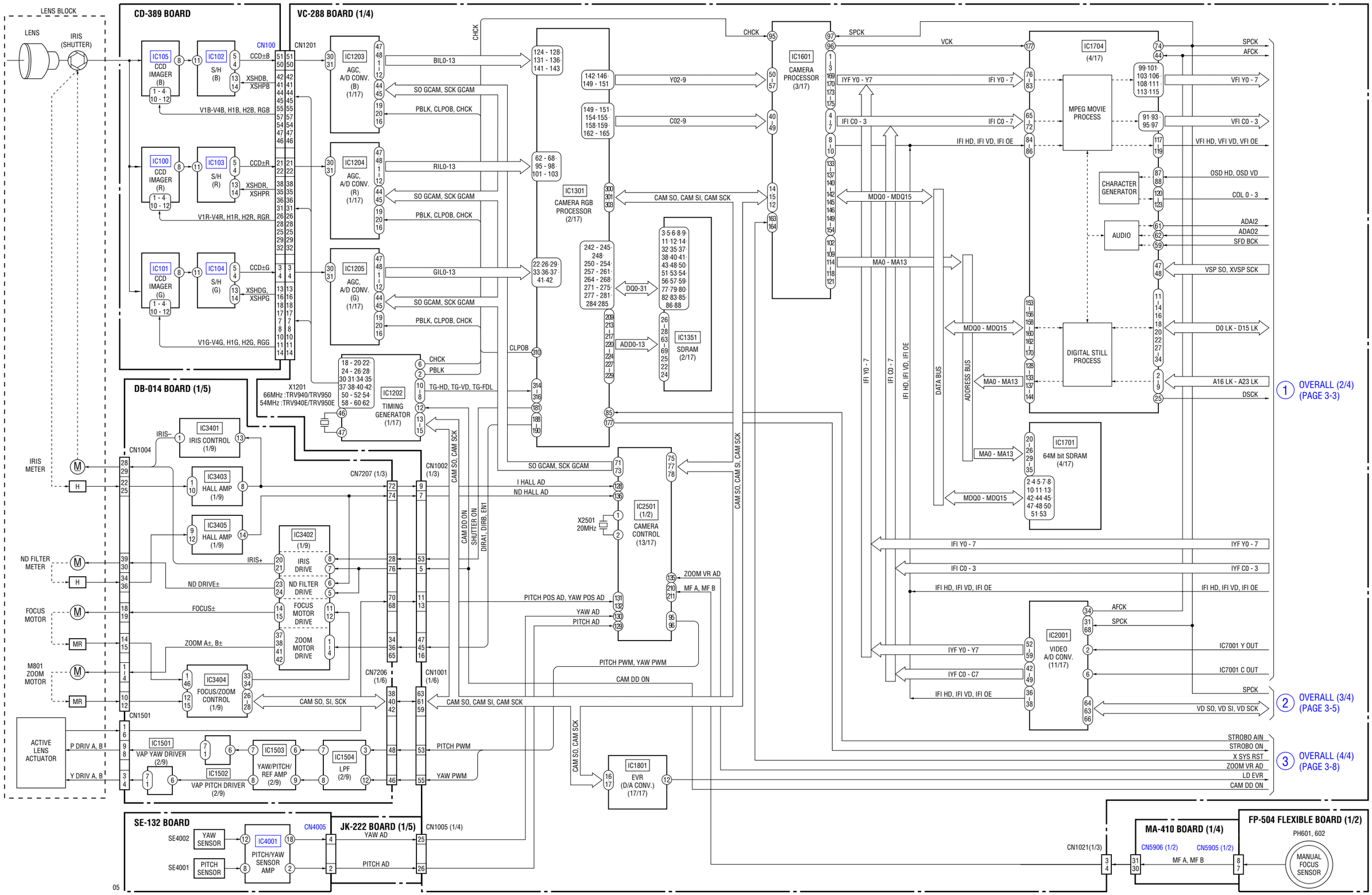
# 3. BLOCK DIAGRAMS

Link


| | |
|---|---|
| OVERALL BLOCK DIAGRAM (1/4) | POWER BLOCK DIAGRAM (1/3) |
| OVERALL BLOCK DIAGRAM (2/4) | POWER BLOCK DIAGRAM (2/3) |
| OVERALL BLOCK DIAGRAM (3/4) | POWER BLOCK DIAGRAM (3/3) |
| OVERALL BLOCK DIAGRAM (4/4) | |

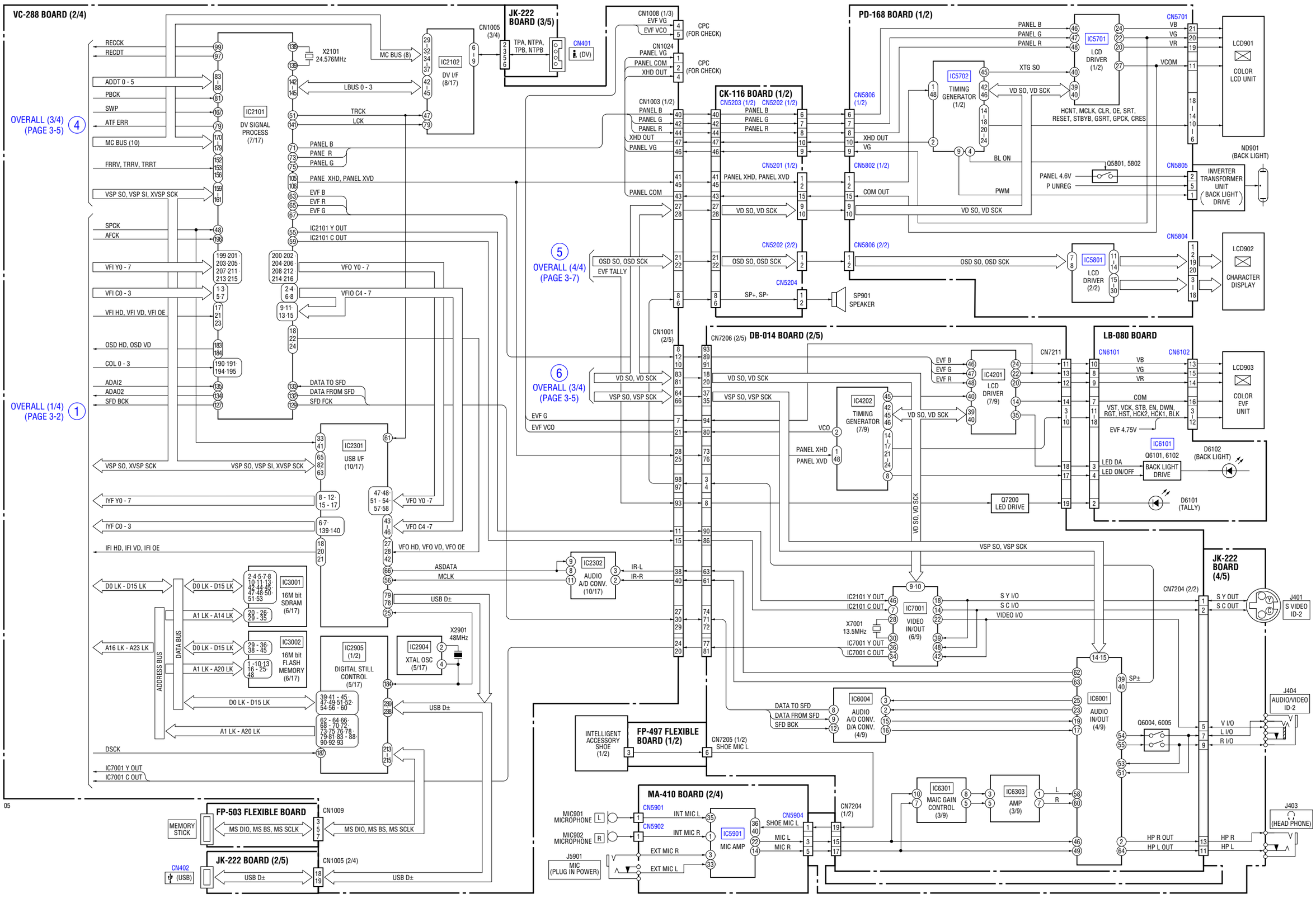
## 3-1. OVERALL BLOCK DIAGRAM (1/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



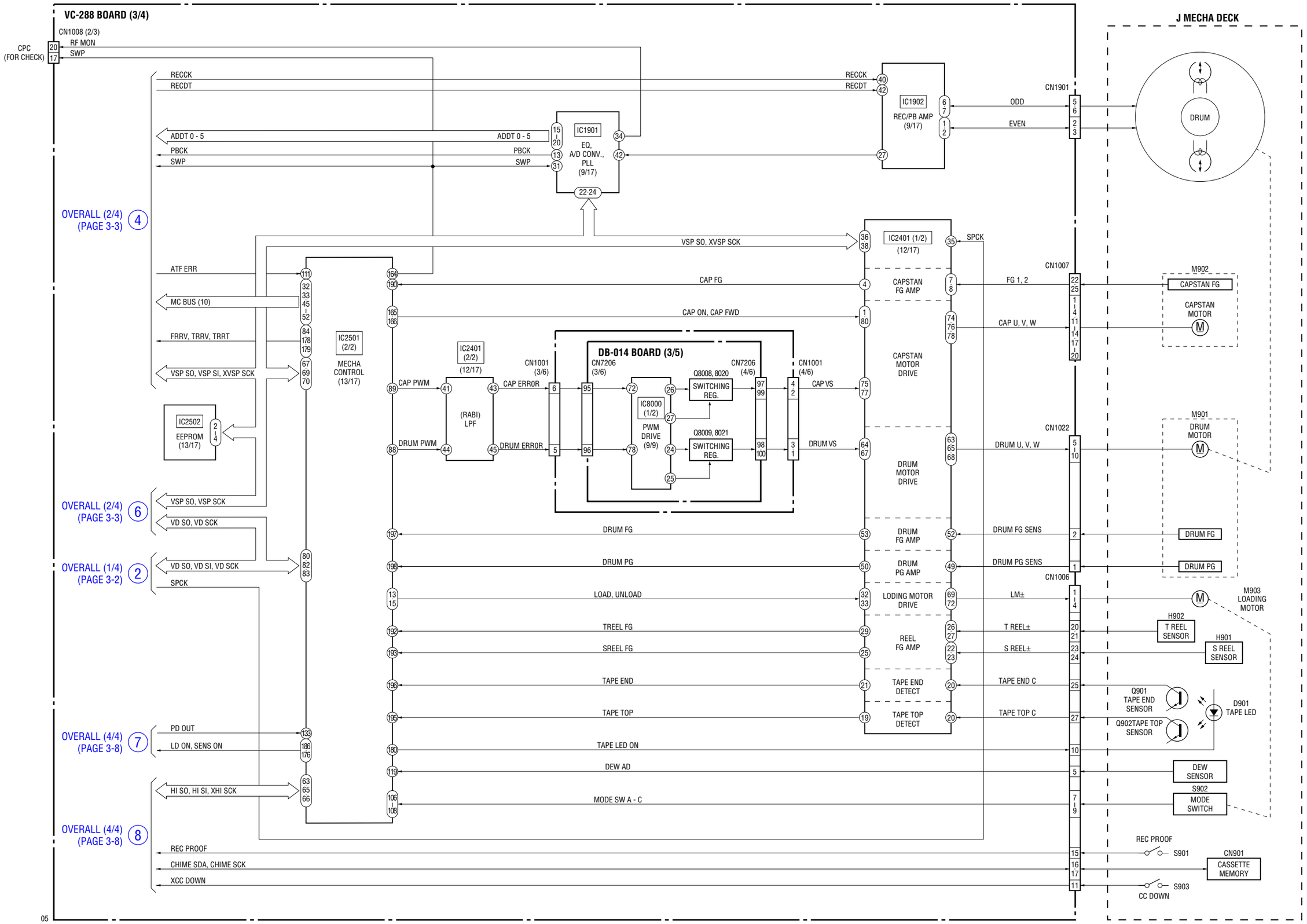
## 3-2. OVERALL BLOCK DIAGRAM (2/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



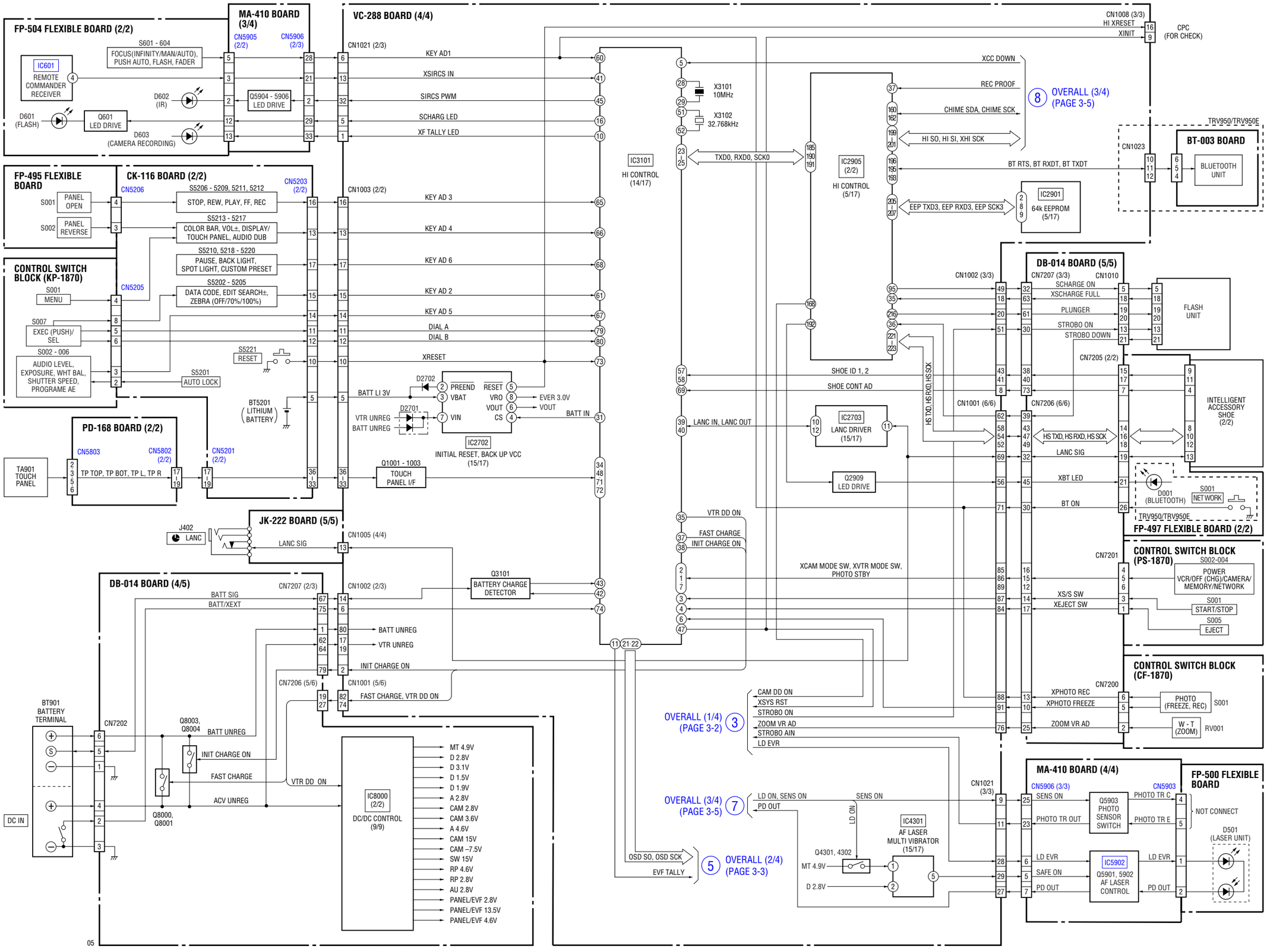
## 3-3. OVERALL BLOCK DIAGRAM (3/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



## 3-4. OVERALL BLOCK DIAGRAM (4/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

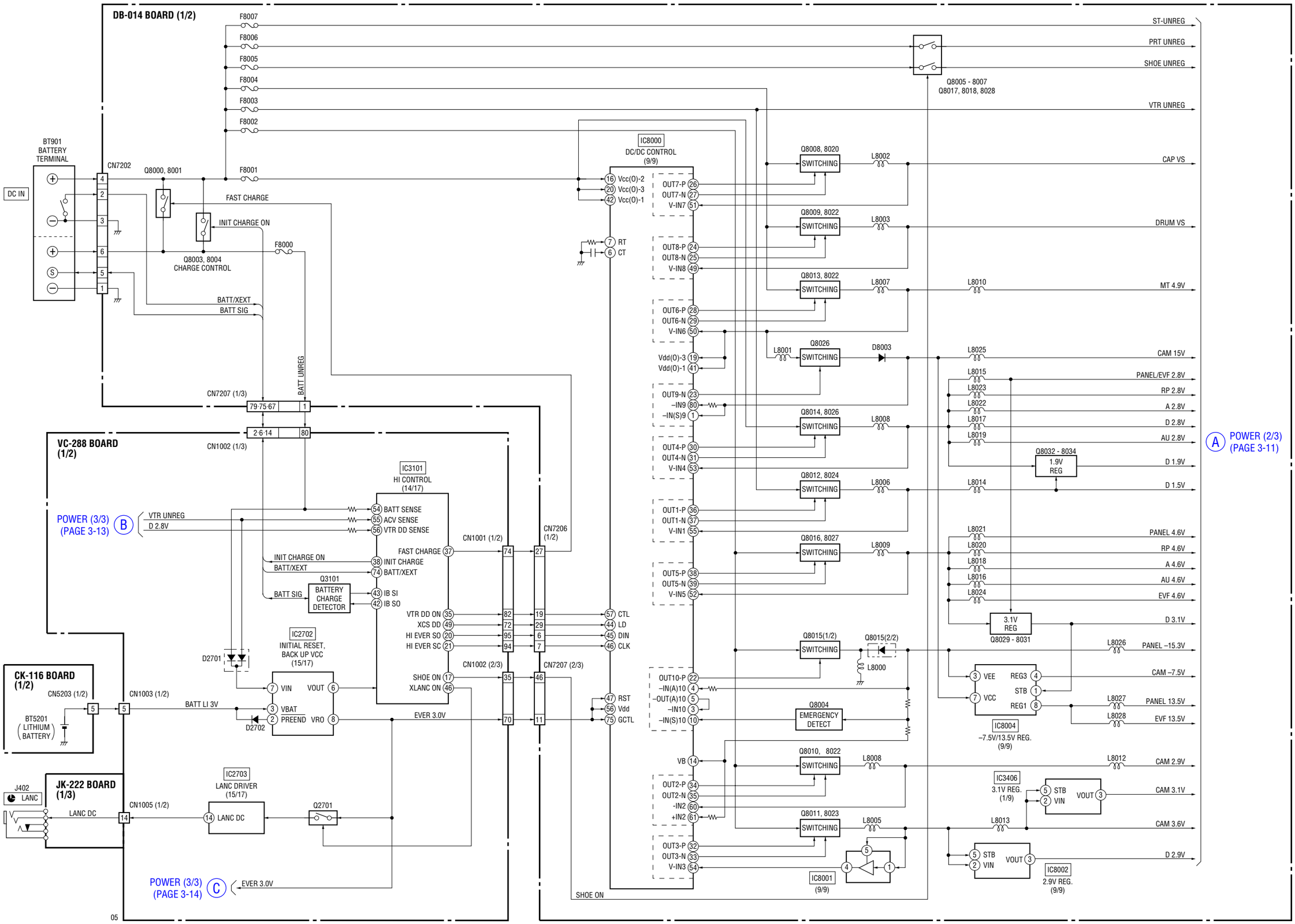


COVER

## 3. BLOCK DIAGRAMS

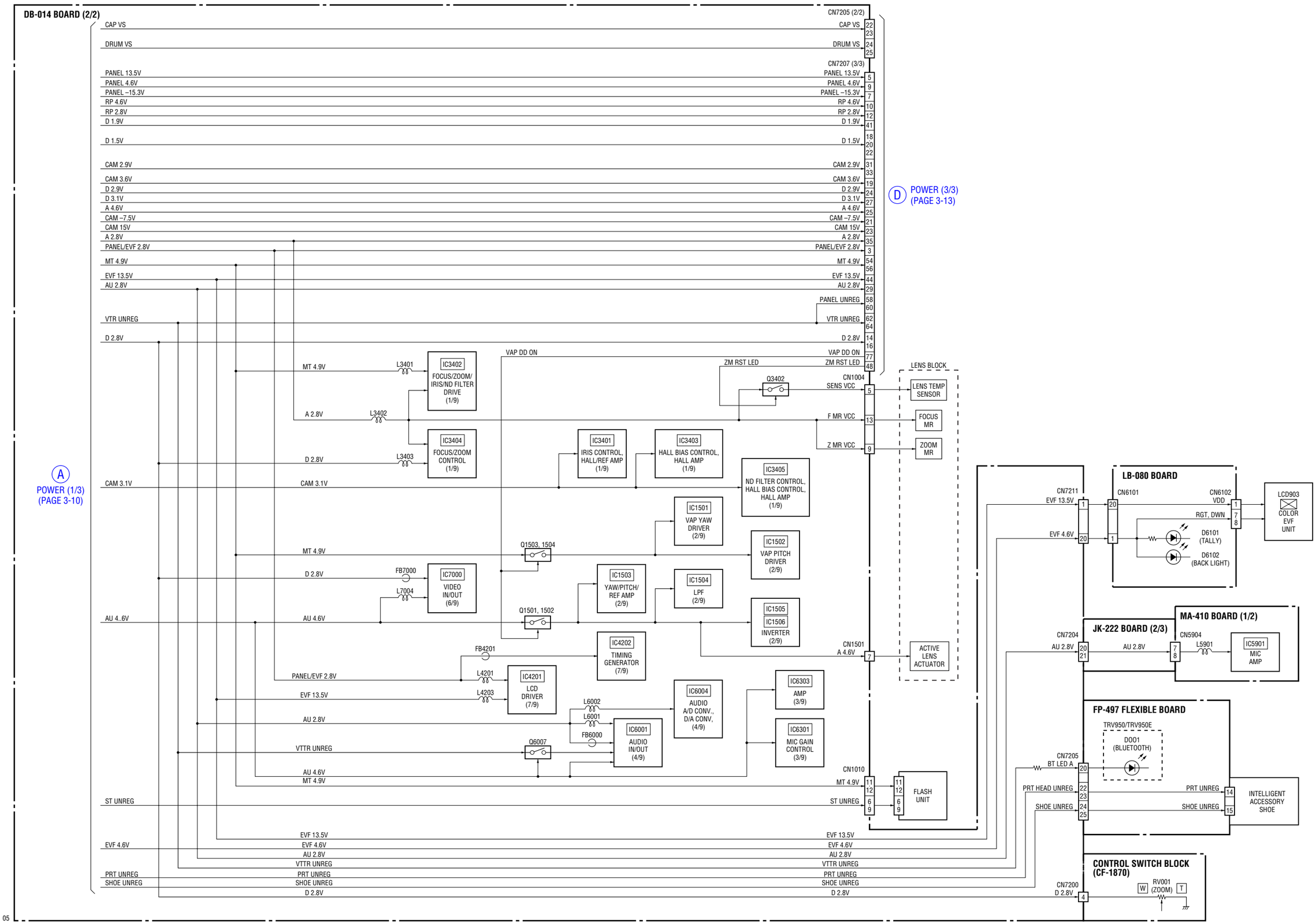
### 3-5. POWER BLOCK DIAGRAM (1/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



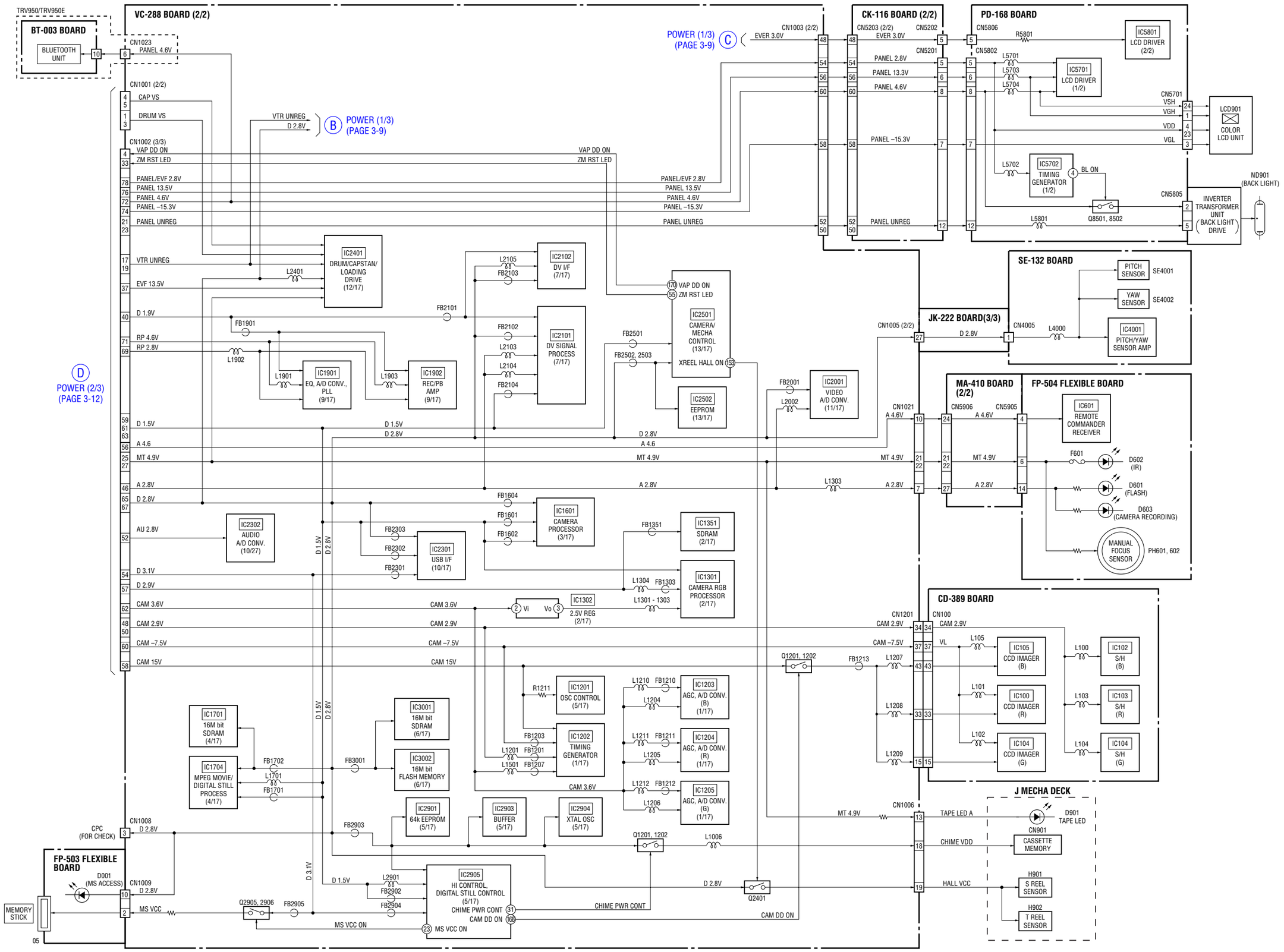
## 3-6. POWER BLOCK DIAGRAM (2/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



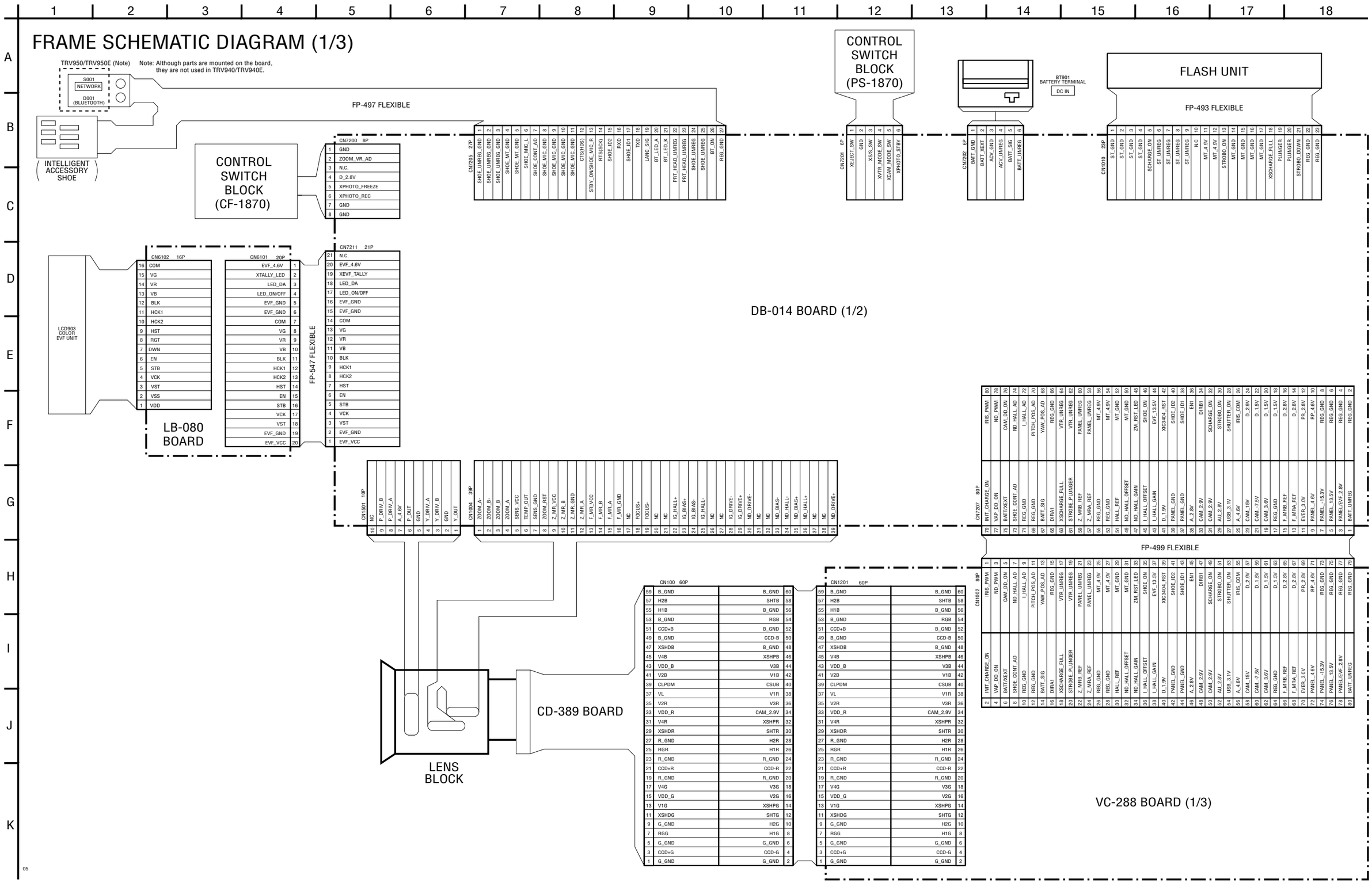
## 3-7. POWER BLOCK DIAGRAM (3/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



# SECTION 4
# PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

## 4-1. FRAME SCHEMATIC DIAGRAMS



# FRAME SCHEMATIC DIAGRAM (2/3)

SE-132 BOARD

CN4005 8P

| | |
|---|---|
| 1 | D_2.8V |
| 2 | PITCH_AD |
| 3 | REG_GND |
| 4 | YAW_AD |
| 5 | C_RESET |
| 6 | VAP_DD_ON |
| 7 | REG_GND |
| 8 | REG_GND |

DB-014 BOARD (2/2)

CN7204 21P

| | | | |
|---|---|---|---|
| 1 | S_Y_OUT | S_Y_GND | 2 |
| 3 | S_C_OUT | S_C_GND | 4 |
| 5 | V_I/O | V_GND | 6 |
| 7 | L_I/O | V_GND | 8 |
| 9 | R_I/O | A_GND | 10 |
| 11 | HP_L | A_GND | 12 |
| 13 | HP_R | MA_GND | 14 |
| 15 | MIC_L | MA_GND | 16 |
| 17 | MIC_R | MA_GND | 18 |
| 19 | SHOEMIC_L | AU_2.8V | 20 |
| 21 | AU_2.8V | | |

CN7206 100P

| | | | |
|---|---|---|---|
| 2 | REG_GND | REG_GND | 1 |
| 4 | SP- | SP+ | 3 |
| 6 | HI EVER_SO | STBY_ON | 5 |
| 8 | EVF_TALLY | HI_EVER_SCK | 7 |
| 10 | XPHOTO_FREEZE | VSS | 9 |
| 12 | PHOTO_STBY | SPCK | 11 |
| 14 | XS/S_SW | XPHOTO_REC | 13 |
| 16 | XCAM_MODE_SW | XVTR_MODE_SW | 15 |
| 18 | VD_SCK | XEJECT_SW | 17 |
| 20 | VD_SO | VTR_DD_ON | 19 |
| 22 | REG_GND | VD_SCK | 21 |
| 24 | KASYAON | VD_SO | 23 |
| 26 | XLR/INT | ZOOM_VR_AD | 25 |
| 28 | VOL_CS | FAST_CHARGE | 27 |
| 30 | BT_ON | XCS_DD | 29 |
| 32 | LANC_SIG | ZM_RST | 31 |
| 34 | VSS | XRST_VTR | 33 |
| 36 | CAM_CS | XVSP_SCK | 35 |
| 38 | CAM_SI | VSP_SO | 37 |
| 40 | CAM_SO | STROBO_DOWN | 39 |
| 42 | CAM_SCK | CTS(HDS) | 41 |
| 44 | TG_VD | TXD | 43 |
| 46 | YAW_PWM | XBT_LED | 45 |
| 48 | PITCH_PWM | RXD | 47 |
| 50 | DEM1 | RTS(SCK) | 49 |
| 52 | DEM0 | IC7001_CK | 51 |
| 54 | XVIDEO_IN | XCS_IC7001 | 53 |
| 56 | XCS_EVF | ACC_CONT | 55 |
| 58 | SDC_IN | AGC_CONT | 57 |
| 60 | XAUDIO_IN | REG_GND | 59 |
| 62 | XPWAD | IR_R | 61 |
| 64 | XPWDA | IR_L | 63 |
| 66 | LENS_TEMP_AD | REG_GND | 65 |
| 68 | XCS_AU2 | XCS_AU1 | 67 |
| 70 | SFD_BCK | SFD_FCK | 69 |
| 72 | SFD_LRCK | DATA_FROM_SFD | 71 |
| 74 | DATA_TO_SFD | PANEL_XHD | 73 |
| 76 | PANEL_XVD | REG_GND | 75 |
| 78 | LED_DA | IC7001_Y_OUT | 77 |
| 80 | VCO | REG_GND | 79 |
| 82 | BEEP | IC7001_C_OUT | 81 |
| 84 | REG_GND | REG_GND | 83 |
| 86 | IC2101_C_OUT | IC2001_APC_ERROR | 85 |
| 88 | REG_GND | REG_GND | 87 |
| 90 | IC2101_Y_OUT | EVF_G/BW_Y | 89 |
| 92 | REG_GND | EVF_R | 91 |
| 94 | | EVF_B | 93 |
| 96 | DRUM_ERROR | CAP_ERROR | 95 |
| 98 | DRUM_VS | CAP_VS | 97 |
| 100 | DRUM_VS | CAP_VS | 99 |

FP-498 FLEXIBLE

JK-222 BOARD

CN401 4P

| | |
|---|---|
| 4 | TPA |
| 3 | NTPA |
| 2 | TPB |
| 1 | NTPB |

DV

CN402 5P

| | |
|---|---|
| 1 | VCC |
| 2 | D- |
| 3 | D+ |
| 4 | ID |
| 5 | GND |

(USB)

CN1005 27P

| | |
|---|---|
| 1 | DV_GND |
| 2 | TPA |
| 3 | NTPA |
| 4 | DV_GND |
| 5 | TPB |
| 6 | NTPB |
| 7 | DV_GND |
| 8 | N.C. |
| 9 | XS_JACK_IN |
| 10 | AV_JACK_IN |
| 11 | XHP_JACK_IN |
| 12 | XLANC_JACK_IN |
| 13 | LANC_SIG |
| 14 | LANC_DC |
| 15 | REG_GND |
| 16 | USB_DET |
| 17 | REG_GND |
| 18 | USB_D+ |
| 19 | USB_D- |
| 20 | REG_GND |
| 21 | REG_GND |
| 22 | VAP_DD_ON |
| 23 | REG_GND |
| 24 | C_RESET |
| 25 | YS_OUT |
| 26 | PS_OUT |
| 27 | D_2.8V |

CN1001 100P

| | | | |
|---|---|---|---|
| 99 | REG_GND | REG_GND | 100 |
| 97 | SP- | SP+ | 98 |
| 95 | HI EVER_SO | STBY_ON | 96 |
| 93 | EVF_TALLY | HI_EVER_SCK | 94 |
| 91 | XPHOTO_FREEZE | VSS | 92 |
| 89 | PHOTO_STBY | SPCK | 90 |
| 87 | XS/S_SW | XPHOTO_REC | 88 |
| 85 | XCAM_MODE_SW | XVTR_MODE_SW | 86 |
| 83 | VD_SCK | XEJECT_SW | 84 |
| 81 | VD_SO | VTR_DD_ON | 82 |
| 79 | REG_GND | VD_SCK | 80 |
| 77 | KASYAON | VD_SO | 78 |
| 75 | XLR/INT | ZOOM_VR_AD | 76 |
| 73 | VOL_CS | FAST_CHARGE | 74 |
| 71 | BT_ON | XCS_DD | 72 |
| 69 | LANC_SIG | ZM_RST | 70 |
| 67 | VSS | XRST_VTR | 68 |
| 65 | CAM_CS | XVSP_SCK | 66 |
| 63 | CAM_SI | VSP_SO | 64 |
| 61 | CAM_SO | STROBO_DOWN | 62 |
| 59 | CAM_SCK | CTS(HDS) | 60 |
| 57 | TG_VD | TXD | 58 |
| 55 | YAW_PWM | XBT_LED | 56 |
| 53 | PITCH_PWM | RXD | 54 |
| 51 | DEM1 | RTS(SCK) | 52 |
| 49 | DEM0 | IC7001_CK | 50 |
| 47 | XVIDEO_IN | XCS_IC7001 | 48 |
| 45 | XCS_EVF | AGC_CONT | 46 |
| 43 | SDC_IN | AGC_CONT | 44 |
| 41 | XAUDIO_IN | REG_GND | 42 |
| 39 | XPWAD | IR_R | 40 |
| 37 | XPWDA | IR_L | 38 |
| 35 | LENS_TEMP_AD | REG_GND | 36 |
| 33 | XCS_AU2 | XCS_AU1 | 34 |
| 31 | SFD_BCK | SFD_FCK | 32 |
| 29 | SFD_LRCK | DATA_FROM_SFD | 30 |
| 27 | DATA_TO_SFD | PANEL_XHD | 28 |
| 25 | PANEL_XVD | REG_GND | 26 |
| 23 | LED_DA | IC7001_Y_OUT | 24 |
| 21 | VCO | REG_GND | 22 |
| 19 | BEEP | IC7001_C_OUT | 20 |
| 17 | REG_GND | REG_GND | 18 |
| 15 | IC2101_C_OUT | IC2001_APC_ERROR | 16 |
| 13 | REG_GND | REG_GND | 14 |
| 11 | IC2101_Y_OUT | EVF_G/BW_Y | 12 |
| 9 | REG_GND | EVF_R | 10 |
| 7 | G | EVF_B | 8 |
| 5 | DRUM_ERROR | CAP_ERROR | 6 |
| 3 | DRUM_VS | CAP_VS | 4 |
| 1 | DRUM_VS | CAP_VS | 2 |

CN5904 8P

| | |
|---|---|
| 8 | AU_2.8V |
| 7 | AU_2.8V |
| 6 | AU_GND |
| 5 | MIC_R |
| 4 | AU_GND |
| 3 | MIC_L |
| 2 | AU_GND |
| 1 | SHOE_MIC_L |

MIC901 (MICROPHONE) L

MIC902 (MICROPHONE) R

CN5901 2P

| | |
|---|---|
| 1 | INT_MIC_L |
| 2 | INT_MIC_GND |

| | |
|---|---|
| 1 | INT_MIC_R |
| 2 | INT_MIC_GND |

CN5902 2P

CN5903 6P

| | |
|---|---|
| 1 | LD_EVR |
| 2 | PD_OUT |
| 3 | MTGND |
| 4 | PHOTO_TR_C (N.C) |
| 5 | PHOTO_TR_E (N.C) |
| 6 | N.C. |

FP-500 FLEXIBLE

MA-410 BOARD

D501 (LASER UNIT) LASER AF ILLUMINATOR

FP-504 FLEXIBLE

CN5905 16P

| | |
|---|---|
| 1 | REG_GND |
| 2 | SIRCS_DRV_CL |
| 3 | X_SIRCS_IN |
| 4 | A_4.6V |
| 5 | KEY_AD1M |
| 6 | MT_4.9V |
| 7 | MF_B |
| 8 | MF_A |
| 9 | GND |
| 10 | GND |
| 11 | MF_LED |
| 12 | SCHARGE_LED |
| 13 | XTALLY_LED |
| 14 | A_2.8V |
| 15 | MT_GND |
| 16 | N.C. |

CN5906 33P

| | |
|---|---|
| XF_TALLY_LED | 33 |
| MF_LED | 32 |
| MF_A | 31 |
| MF_B | 30 |
| SCHARGE_LED | 29 |
| KEY_AD1M | 28 |
| A_2.8V | 27 |
| REG_GND | 26 |
| SENS_ON | 25 |
| A_4.6V | 24 |
| PHOTO_TR_OUT | 23 |
| REG_GND | 22 |
| XSIRCS_IN | 21 |
| AU_GND | 20 |
| ZOOM_MIC_CONT | 19 |
| AU_2.8V | 18 |
| EXT_MIC_DET | 17 |
| REG_GND | 16 |
| AU_GND | 15 |
| AU_GND | 14 |
| MT_4.9V | 13 |
| MT_4.9V | 12 |
| REG_GND | 11 |
| XMIC_MONO | 10 |
| AF_LD_VCC | 9 |
| AF_LD_VCC | 8 |
| PD_OUT | 7 |
| LD_EVR | 6 |
| SAFE_ON | 5 |
| MT_GND | 4 |
| MT_GND | 3 |
| SIRCS_PWM | 2 |
| | 1 |

FP-494 FLEXIBLE

CN1021 33P

| | |
|---|---|
| 1 | XF_TALLY_LED |
| 2 | MF_LED |
| 3 | MF_A |
| 4 | MF_B |
| 5 | SCHARGE_LED |
| 6 | KEY_AD1M |
| 7 | A_2.8V |
| 8 | REG_GND |
| 9 | SENS_ON |
| 10 | A_4.6V |
| 11 | PHOTO_TR_OUT |
| 12 | REG_GND |
| 13 | XSIRCS_IN |
| 14 | AU_GND |
| 15 | ZOOM_MIC_CONT |
| 16 | AU_2.8V |
| 17 | EXT_MIC_DET |
| 18 | REG_GND |
| 19 | AU_GND |
| 20 | AU_GND |
| 21 | MT_4.9V |
| 22 | MT_4.9V |
| 23 | REG_GND |
| 24 | XMIC_MONO |
| 25 | AF_LD_VCC |
| 26 | AF_LD_VCC |
| 27 | PD_OUT |
| 28 | LD_EVR |
| 29 | SAFE_ON |
| 30 | MT_GND |
| 31 | MT_GND |
| 32 | SIRCS_PWM |
| 33 | N.C |

VC-288 BOARD (2/3)

CN1008 20P

| | |
|---|---|
| N.C | 1 |
| D_2.8V | 2 |
| EVF_LED_DA | 3 |
| EVF_VG | 4 |
| EVF_VCO | 5 |
| GND | 6 |
| MD2 | 7 |
| XCS_MC_FLASH | 8 |
| XINIT | 9 |
| XCS_ST_IMAGE_IC | 10 |
| DRUM_ON | 11 |
| FRRV | 12 |
| REC_CRRT1 | 13 |
| REC_CRRT0 | 14 |
| REG_GND | 15 |
| HI_XRESET | 16 |
| SWP | 17 |
| RF_IN | 18 |
| GND | 19 |
| RF_MON | 20 |

CPC (FOR CHECK)

CN1024 6P

| | |
|---|---|
| PANEL_VG | 1 |
| PANEL_COM | 2 |
| GND | 3 |
| XHD_OUT | 4 |
| N.C | 5 |
| N.C | 6 |

CPC (FOR CHECK)

05

**FRAME (2/3)**

# FRAME SCHEMATIC DIAGRAM (3/3)

CONTROL SWITCH BLOCK (KP-1870)

CN5205 8P
1 GND
2 KEY_AD5BACK
3 KEY_AD5IN
4 MENU
5 DIAL_A
6 DIAL_B
7 GND
8 EXECUTE

SP901 (SPEAKER)
HARNESS (SC-115)
CN5204 2P
1 SP+
2 SP-

CN5206 6P
1 GND
2 GND
3 P_REVERSE
4 P_OPEN
5 GND
6 GND

FP-495 FLEXIBLE

S002 (PANEL REVERS)

S001 (PANEL OPEN)

CK-116 BOARD

CN5201 20P
DISP_HD 1
DISP_VD 2
REG_GND 3
REG_GND 4
PANEL_2.8V 5
PANEL_13.3V 6
PANEL_-15.3V 7
PANEL_4.6V 8
VD_SO 9
VD_SCK 10
XCS_LCD_DAC 11
P_UNREG 12
P_UNREG_GND 13
P_UNREG_GND 14
COM_OUT 15
REG_GND 16
TP_R 17
TP_L 18
TP_BOT 19
TP_TOP 20

HARNESS (PC-087)

CN5802 20P
1 DISP_HD
2 DISP_VD
3 REG_GND
4 REG_GND
5 PANEL_2.8V
6 PANEL_13.3V
7 PANEL_-15.3V
8 PANEL_4.6V
9 VD_SO
10 VD_SCK
11 XCS_LCD_DAC
12 P_UNREG
13 P_UNREG_GND
14 P_UNREG_GND
15 COM_OUT
16 REG_GND
17 TP_R
18 TP_L
19 TP_BOT
20 TP_TOP

CN5202 10P
OSD_SO 1
XOSD_SCK 2
XCS_LCD_DRIVER 3
LCD_COM/XDATA 4
EVER_3.0V 5
PANEL_B 6
PANEL_G 7
PANEL_R 8
VG 9
XHD_OUT 10

HARNESS (PC-088)

CN5806 10P
1 OSD_SO
2 XOSD_SCK
3 XCS_LCD_DRIVER
4 LCD_COM/XDATA
5 EVER_3.0V
6 PANEL_B
7 PANEL_G
8 PANEL_R
9 VG
10 XHD_OUT

INVERTER TRANSFORMER UNIT

15P
BL_GND 1
LED 2
BL_LOW 3
N.C. 4
N.C. 5
N.C. 6
N.C. 7
N.C. 8
N.C. 9
N.C. 10
N.C. 11
N.C. 12
N.C. 13
N.C. 14
BL_HI 15

ND901 BACK LIGHT

LCD901 3.5INCH COLOR LCD UNIT

CN7701 24P
VGH 1
VSS 2
VGL 3
VDD 4
N.C. 5
GRES 6
GPCK 7
GSRT 8
STBYB 9
RESET 10
VCOM 11
VBC 12
STBYB 13
SRT 14
OE 15
CLR 16
MCLK 17
HCNT 18
VR 19
VG 20
VB 21
VSS 22
VDD 23
VSH 24

CN5805 5P
P_UNREG 5
P_UNREG_GND 4
BL_DET 3
PANEL_4.6V 2
PWM 1

PD-168 BOARD

CN5803 7P
NC 7
TP_TOP 6
TP_BOT 5
NC 4
TP_L 3
TP_R 2
NC 1

TA901 TOUCH PANEL

CN5804 21P
NC 21
COM4 20
COM3 19
SEG15 18
SEG16 17
SEG1 16
SEG14 15
SEG13 14
SEG12 13
SEG11 12
SEG10 11
SEG9 10
SEG8 9
SEG7 8
SEG6 7
SEG5 6
SEG4 5
SEG3 4
SEG2 3
COM2 2
COM1 1

LCD902 CHARACTER DISPLAY

TRV950/TRV950E

BT-003 BOARD (Note)

CN1023 15P
REG_GND 1
REG_GND 2
BT_XRST 3
N.C 4
BT_WAKEUP 5
PANEL_4.6V 6
BT_XSLEEP 7
BT_MODE 8
BT_CTS 9
BT_RXDT 10
BT_TXDT 11
BT_RTS 12
BT_RSSI 13
REG_GND 14
REG_GND 15

FP-491 FLEXIBLE

15P
15 GND
14 GND
13 BT_XRST
12 BT_BMCTEST1
11 BT_WAKEUP
10 LCD_4.6V
9 BT_XSLEEP
8 BT_BMCTEST0
7 BT_CTS
6 BT_RXDT
5 BT_TXDT
4 BT_RTS
3 BT_RSSI
2 GND
1 GND

ANT901

Note: BT-003 board is only replaced as a mounted board. Therefore, schematic diagrams and printed wiring boards are not shown.

MEMORY STICK CONNECTOR

10P
VSS 1
VCC 2
SCLK 3
N.C 4
INS 5
N.C 6
DIO 7
VCC 8
BS 9
VSS 10

D001 (MS ACCESS)

FP-503 FLEXIBLE

CN1009 10P
VSS 1
VCC 2
SCLK 3
INS 4
DIO 5
VCC 6
BS 7
VSS 8
ACCESS_LED 9
MS_LED_VCC 10

CN5203 60P
60 PANEL_4.6V
58 PANEL_-15.3V
56 PANEL_13.3V
54 PANEL_2.8V
52 P_UNREG
50 P_UNREG
48 EVER_3.0V
46 PANEL_VG
44 PANEL_R
42 PANEL_G
40 PANEL_B
38 REG_GND
36 TP_R
34 TP_BOT
32 N.C
30 N.C
28 VD_SCK
26 XCS_LCD
24 XCS_LCD_DRIVER
22 OSD_SO
20 REG_GND
18 REG_GND
16 KEY_AD3
14 KEY_AD5
12 DIAL_B
10 XRESET_SW
8 SP+
6 SP-
4 D_2.8V
2 REG_GND
REG_GND 59
REG_GND 57
REG_GND 55
REG_GND 53
P_UNREG_GND 51
P_UNREG_GND 49
XHD_OUT 47
XVD 45
PANEL_COM 43
C-SYNC/XHD 41
N.C 39
REG_GND 37
TP_L 35
TP_TOP 33
REG_GND 31
REG_GND 29
VD_SO 27
ACCESS_LED 25
LCD_COM/XDATA 23
XOSD_SCK 21
N.C 19
KEY_AD6 17
KEY_AD2 15
KEY_AD4 13
DIAL_A 11
N.C 9
REG_GND (N.C) 7
BATT_LI_3V 5
REG_GND 3
REG_GND 1

FP-496 FLEXIBLE

CN1003 60P
59 REG_GND
57 REG_GND
55 REG_GND
53 REG_GND
51 P_UNREG_GND
49 P_UNREG_GND
47 XHD_OUT
45 XVD
43 PANEL_COM
41 C-SYNC/XHD
39 N.C
37 REG_GND
35 TP_L
33 TP_TOP
31 REG_GND
29 REG_GND
27 VD_SO
25 ACCESS_LED
23 LCD_COM/XDATA
21 XOSD_SCK
19 N.C
17 KEY_AD6
15 KEY_AD2
13 KEY_AD4
11 DIAL_A
9 N.C
7 REG_GND (N.C)
5 BATT_LI_3V
3 REG_GND
1 REG_GND
PANEL_4.6V 60
PANEL_-15.3V 58
PANEL_13.3V 56
PANEL_2.8V 54
P_UNREG 52
P_UNREG 50
EVER_3.0V 48
PANEL_VG 46
PANEL_R 44
PANEL_G 42
N.C 40
REG_GND 38
TP_R 36
TP_BOT 34
N.C 32
N.C 30
VD_SCK 28
XCS_LCD 26
XCS_LCD_DRIVER 24
OSD_SO 22
REG_GND 20
KEY_AD6 18
KEY_AD2 16
KEY_AD4 14
DIAL_B 12
XRESET_SW 10
SP+ 8
SP- 6
D_2.8V 4
REG_GND 2

VC-288 BOARD (3/3)

CN1901 10P
GND 1
YSDL 2
XSDL 3
GND 4
YODD 5
XODD 6
GND 7
YEVEN 8
XEVEN 9
GND 10

VIDEO HEAD (ODD,EVEN)

CN1022 10P
DRUM_W 10
DRUM_W 9
DRUM_V 8
DRUM_V 7
DRUM_U 6
DRUM_U 5
M_COM 4
FG/PG_COM 3
FG 2
PG 1

M901 DRUM MOTOR

CN1006 27P
LM_LOAD 1
LM_LOAD 2
LM_UNLOAD 3
LM_UNLOAD 4
DEW- 5
DEW- 6
XMODE_SW_A 7
XMODE_SW_B 8
XMODE_SW_C 9
SW_COM/SW_GND 10
XCCDDOWN_SW 11
TAPE_LED_K 12
TAPE_LED_A 13
MIC/REC_SW_GND 14
XREC_PROOF 15
CHIME_SCK 16
CHIME_SDA 17
CHIME_VDD 18
HALL_VCC 19
TREEL+ 20
TREEL- 21
HALL_GND 22
SREEL- 23
SREEL+ 24
TAPE_END 25
TOPEND_GND 26
TAPE_TOP 27

FP-102 FLEXIBLE BOARD

LM_LOAD 1
LM_LOAD 2
LM_UNLOAD 3
LM_UNLOAD 4
DEW+ 5
DEW- 6
MODE A 7
MODE B 8
MODE C 9
SW_COM/SW_GND 10

FP-100 FLEXIBLE BOARD

M903 CAPSTAN MOTOR

FP-228 FLEXIBLE BOARD

DEW SENSOR

MD (J-MECHANISM)

CN1007 27P
CAP_V 1
CAP_V 2
CAP_V 3
CAP_V 4
UHE- 5
HE VCC 6
UHE+ 7
VHE+ 8
VHE- 9
HE_GND 10
CAP_W 11
CAP_W 12
CAP_W 13
CAP_W 14
VHE- 15
VHE- 16
CAP_U 17
CAP_U 18
CAP_U 19
CAP_U 20
N.C. 21
FG1 22
FG_VCC 23
FG_VCC 24
FG2 25
FG_GND 26
FG_GND 27

M902 CAPSTAN MOTOR

COVER

4-2. SCHEMATIC DIAGRAMS

# 4-2. SCHEMATIC DIAGRAMS

**THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS**
**(In addition to this, the necessary note is printed in each block)**

**(For schematic diagrams)**

- All capacitors are in µF unless otherwise noted. pF : µµF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts. New parts must be attached after removal of chip. Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example: C541 22U TA A; L452 10UH 2520

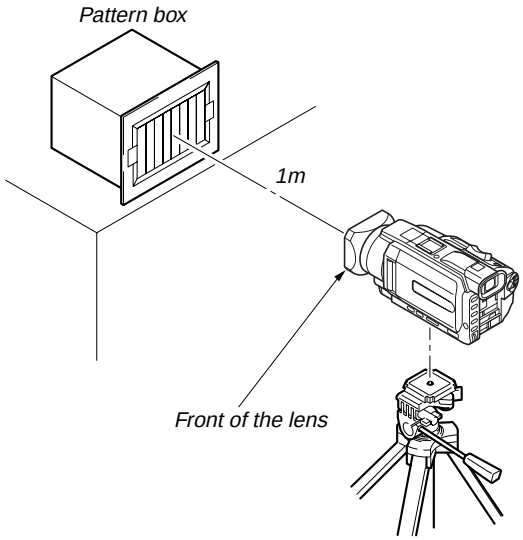
Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used. In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination. Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$  PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : VIDEO SIGNAL (ANALOG)
- : AUDIO SIGNAL (ANALOG)
- : VIDEO/AUDIO SIGNAL
- : VIDEO/AUDIO/SERVO SIGNAL
- : SERVO SIGNAL
- Circled numbers refer to waveforms.

**(Measuring conditions voltage and waveform)**

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms. (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

1. Connection




2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

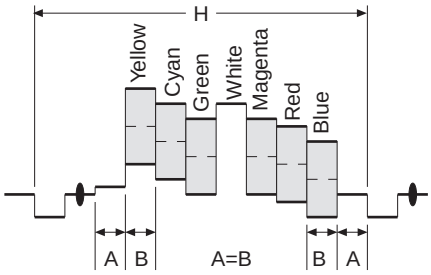



Fig. a (Video output terminal output waveform)

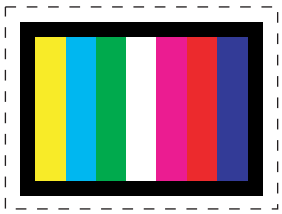


Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

**Note :** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

**Note :** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.

COVER

# 4-2. SCHEMATIC DIAGRAMS

## Link


| | |
|---|---|
| CD-389 BOARD (CCD IMAGER) | PD-168 BOARD (2/2) (LCD DRIVER, BACKLIGHT) |
| SE-132 BOARD (PITCH/YAW SENSOR) | LB-080 BOARD (EVF, EVF BACKLIGHT) |
| MA-410 BOARD (MIC AMP, AF LASER CONTROL) | FP-504 FLEXIBLE BOARD |
| CK-116 BOARD (CONTROL SWITCH) | FP-495, FP-497, FP-500, FP-503 FLEXIBLE BOARD |
| JK-222 BOARD (AV IN/OUT, DV/USB CONNECTOR) | FP-100, FP-102, FP-228 FLEXIBLE BOARD |
| PD-168 BOARD (1/2) (LCD DRIVER, TIMING GENERATOR) | CONTROL SWITCH BLOCK (CF-1870, KP-1870, PS-1870) |

| | |
|---|---|
| COMMON NOTE FOR SCHEMATIC DIAGRAMS | WAVEFORMS |

COVER



**For Schematic Diagram**
- Refer to page 4-89 for printed wiring board.
- Refer to page 4-125 for waveforms.

# CD-389 BOARD

## CCD IMAGER

XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE

*1 CCD IMAGER (IC100,101 and 105)is supplied as a prism block.

SIGNAL PATH

| | |
|---|---|
| | VIDEO SIGNAL |
| | Y/CHROMA |
| REC | |

IC102 AD80017AJRURL S/H (B)
IC105 CCD IMAGER (B) *1 ICX427AL-13
IC100 CCD IMAGER (R) *1 ICX427AL-13
IC101 CCD IMAGER (G) *1 ICX427AL-13
IC103 AD80017AJRURL S/H (R)
IC104 AD80017AJRURL S/H (G)
Q100 UN9213J-(TX).SO SWITCH
Q101 UN9213J-(TX).SO SWITCH
Q102 UN9213J-(TX).SO SWITCH

VC-288 (1/17)
CN1201
(PAGE 4-14)

CN100 60P

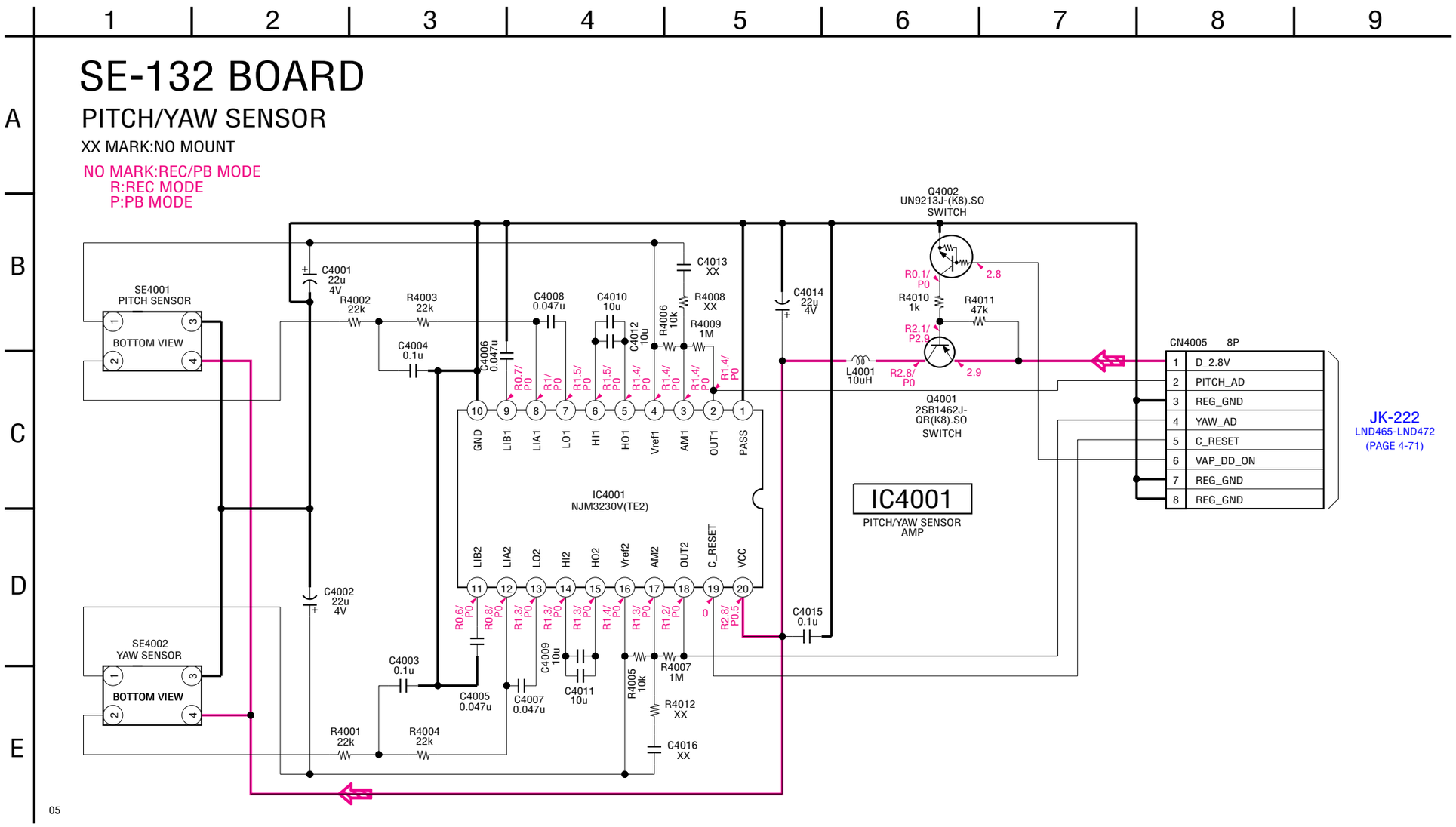
| | | | |
|---|---|---|---|
| 59 | B_GND | B_GND | 60 |
| 57 | H2B | SHTB | 58 |
| 55 | H1B | B_GND | 56 |
| 53 | B_GND | RGB | 54 |
| 51 | CCD+B | B_GND | 52 |
| 49 | B_GND | CCD-B | 50 |
| 47 | XSHDB | B_GND | 48 |
| 45 | V4B | XSHPB | 46 |
| 43 | VDD_B | V3B | 44 |
| 41 | V2B | V1B | 42 |
| 39 | CLPDM | CSUB | 40 |
| 37 | VL | V1R | 38 |
| 35 | V2R | V3R | 36 |
| 33 | VDD_R | CAM_2.9V | 34 |
| 31 | V4R | XSHPR | 32 |
| 29 | XSHDR | SHTR | 30 |
| 27 | R_GND | H2R | 28 |
| 25 | RGR | H1R | 26 |
| 23 | R_GND | R_GND | 24 |
| 21 | CCD+R | CCD-R | 22 |
| 19 | R_GND | R_GND | 20 |
| 17 | V4G | V3G | 18 |
| 15 | VDD_G | V2G | 16 |
| 13 | V1G | XSHPG | 14 |
| 11 | XSHDG | SHTG | 12 |
| 9 | G_GND | H2G | 10 |
| 7 | RGG | H1G | 8 |
| 5 | G_GND | G_GND | 6 |
| 3 | CCD+G | CCD-G | 4 |
| 1 | G_GND | G_GND | 2 |

**Precautions for Replacement of CCD Imager**
- The CD-389 board mounted as a repair part is not equipped with a CCD imager.
  When replacing this board, remove the CCD imager from the old one and mount it onto the new one.
- If the CCD imager has been replaced, carry out all the adjustments for the camera section.
- As the CCD imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

Schematic diagrams of the VC-288, DB-014 boards are not shown.
Pages from 4-13 to 4-64 are not shown.

**For Schematic Diagram**

• Refer to page 4-101 for printed wiring board.



**For Schematic Diagram**

• Refer to page 4-103 for printed wiring board.

# MA-410 BOARD

## MIC AMP, AF LASER CONTROL

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

IC5901
MIC AMP
IC5901
AN2901FHQ-EB

IC5902
AF LASER CONTROL

Note: C5944 and C5945 are mounted on the board with suffix number 12.

SIGNAL PATH
AUDIO SIGNAL
REC

**For Schematic Diagram**

• Refer to page 4-105 for printed wiring board.

# CK-116 BOARD

## CONTROL SWITCH

XX MARK:NO MOUNT

VC-288(16/17)
CN1003
(THROUGH THE FP-496 FLEXIBLE)
(PAGE 4-43)

CN5203 60P

| | | | |
|---|---|---|---|
| 60 | PANEL_4.6V | REG_GND | 59 |
| 58 | PANEL_-15.3V | REG_GND | 57 |
| 56 | PANEL_13.3V | REG_GND | 55 |
| 54 | PANEL_2.8V | REG_GND | 53 |
| 52 | P_UNREG | P_UNREG_GND | 51 |
| 50 | P_UNREG | P_UNREG_GND | 49 |
| 48 | EVER_3.0V | XHD_OUT | 47 |
| 46 | PANEL_VG | XVD | 45 |
| 44 | PANEL_R | PANEL_COM | 43 |
| 42 | PANEL_G | C-SYNC/XHD | 41 |
| 40 | PANEL_B | N.C | 39 |
| 38 | REG_GND | REG_GND | 37 |
| 36 | TP_R | TP_L | 35 |
| 34 | TP_BOT | TP_TOP | 33 |
| 32 | N.C | REG_GND | 31 |
| 30 | N.C | REG_GND | 29 |
| 28 | VD_SCK | VD_SO | 27 |
| 26 | XCS_LCD | ACCESS_LED | 25 |
| 24 | XCS_LCD_DRIVER | LCD_COM/XDATA | 23 |
| 22 | OSD_SO | XOSD_SCK | 21 |
| 20 | REG_GND | N.C | 19 |
| 18 | REG_GND | KEY_AD6 | 17 |
| 16 | KEY_AD3 | KEY_AD2 | 15 |
| 14 | KEY_AD5 | KEY_AD4 | 13 |
| 12 | DIAL_B | DIAL_A | 11 |
| 10 | XRESET_SW | N.C | 9 |
| 8 | SP+ | REG_GND | 7 |
| 6 | SP- | BATT_LI_3V | 5 |
| 4 | D_2.8V | REG_GND | 3 |
| 2 | REG_GND | REG_GND | 1 |

CN5201 20P

| | | |
|---|---|---|
| DISP_HD | 1 | DISP_HD |
| DISP_VD | 2 | DISP_VD |
| REG_GND | 3 | |
| REG_GND | 4 | |
| PANEL_2.8V | 5 | PANEL_2.8V |
| PANEL_13.3V | 6 | PANEL_13.3V |
| PANEL_-15.3V | 7 | PANEL_-15.3V |
| PANEL_4.6V | 8 | PANEL_4.6V |
| VD_SO | 9 | VD_SO |
| VD_SCK | 10 | VD_SCK |
| XCS_LCD_DAC | 11 | XCS_LCD |
| P_UNREG | 12 | |
| P_UNREG_GND | 13 | |
| P_UNREG_GND | 14 | |
| COM_OUT | 15 | COM_OUT |
| REG_GND | 16 | |
| TP_R | 17 | TP_R |
| TP_L | 18 | TP_L |
| TP_BOT | 19 | TP_BOT |
| TP_TOP | 20 | TP_TOP |

PD-168(2/2)
CN5802
(THROUGH THE PC-087 HARNESS (PAGE 4-75))

CN5202 10P

| | | |
|---|---|---|
| OSD_SO | 1 | OSD_SO |
| XOSD_SCK | 2 | XOSD_SCK |
| XCS_LCD_DRIVER | 3 | XCS_LCD_DRIVER |
| LCD_COM/XDATA | 4 | LCD_COM/XDATA |
| EVER_3.0V | 5 | EVER_3.0V |
| PANEL_B | 6 | PANEL_B |
| PANEL_G | 7 | PANEL_G |
| PANEL_R | 8 | PANEL_R |
| VG | 9 | PANEL_VG |
| XHD_OUT | 10 | XHD_OUT |

PD-168(2/2)
CN5806
(THROUGH THE PC-088 HARNESS (PAGE 4-75))

CN5204 2P
SP901 (SPEAKER)

CN5205 8P

| | |
|---|---|
| 1 | GND |
| 2 | KEY_AD5BACK |
| 3 | KEY_AD5IN |
| 4 | MENU |
| 5 | DIAL_A |
| 6 | DIAL_B |
| 7 | GND |
| 8 | EXECUTE |

CONTROL SWITCH BLOCK (KP-1870) (PAGE 4-85)

CN5206 6P

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | P_REVERSE |
| 4 | P_OPEN |
| 5 | GND |
| 6 | GND |

FP-495 FLEXIBLE (PAGE 4-81)

LN5201 SEIDEN_GND
LN5202 SEIDEN_GND
LN5203 SEIDEN_GND
LN5204 SEIDEN_GND

D5208 01ZA8.2(TPL3)
D5209 01ZA8.2(TPL3)
D5205 01ZA8.2(TPL3)
D5206 01ZA8.2(TPL3)
D5207 01ZA8.2(TPL3)
D5201 MAZS082008SO
D5202 01ZA8.2(TPL3)
D5203 01ZA8.2(TPL3)
D5204 MAZS082008SO

C5201 10u 16V
C5202 0.1u
C5203 XX

R5202 XX
R5203 XX
R5204 XX
R5205 XX
R5206 XX
R5207 XX
R5209 0
R5210 0
R5211 0
R5212 0
R5213 1200
R5214 1200
R5215 1200
R5216 1200
R5217 1500
R5218 1500
R5219 1500
R5220 1500
R5221 2200
R5222 2200
R5223 2200
R5224 2200
R5225 8200
R5226 3900
R5227 3900
R5228 3900
R5229 3900
R5230 27k
R5231 8200
R5232 8200
R5233 8200
R5234 8200
R5235 27k
R5236 27k
R5237 27k
R5238 27k
R5239 0
R5240 0
R5241 XX
R5242 XX
R5243 470
R5244 0
R5208 0

S5201 AUTO_LOCK_SW
S5202
S5203
S5204
S5205
S5206
S5207
S5208
S5209
S5210
S5211
S5212
S5213
S5214
S5215
S5116
S5217
S5218
S5219
S5220
S5221

DATA CODE
EDIT SEARCH
ZEBRA_SW
OFF
70%
100%
STOP
REW
PLAY
FF
REC
VOLUME
COLOR BAR
DISPLAY/ TOUCH PANEL
AUDIO_DUB
PAUSE
BACK_LIGHT
SPOT_LIGHT
CUSTOM_PRESET
RESET
AUTO LOCK
AUTO LOCK RELEASE
HOLD

BT5201 LITHIUM BATTERY (SECONDARY)

SIGNAL PATH

| | VIDEO SIGNAL | CHROMA |
|---|---|---|
| REC | | |
| PB | | |

| | AUDIO SIGNAL |
|---|---|
| PB | |

**For Schematic Diagram**

• Refer to page 4-109 for printed wiring board.

# JK-222 BOARD

## AV IN/OUT,DV/USB CONNECTOR

XX MARK:NO MOUNT

SIGNAL PATH

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | → | → | → | → |
| PB | ⇢ | ⇢ | ⇢ | ⇢ |

DB-014 (8/9)
CN7204
(PAGE 4-61)

| | | |
|---|---|---|
| LND401 | 1 | S_Y_OUT |
| LND402 | | S_Y_GND |
| LND403 | | S_C_OUT |
| LND404 | | S_C_GND |
| LND405 | | V_I/O |
| LND406 | | V_GND |
| LND407 | | L_I/O |
| LND408 | | V_GND |
| LND409 | | R_I/O |
| LND410 | | A_GND |
| LND411 | | HP_L |
| LND412 | | A_GND |
| LND413 | | HP_R |
| LND414 | | MA_GND |
| LND415 | | MIC_L |
| LND416 | | MA_GND |
| LND417 | | MIC_R |
| LND418 | | MA_GND |
| LND419 | | SHOEMIC_L |
| LND421 | | AU_2.8V |
| LND422 | 21 | AU_2.8V |

MA-410
CN5904
(PAGE 4-68)

| | | |
|---|---|---|
| LND451 | 1 | SHOE_MIC_L |
| LND452 | | AU_GND |
| LND453 | | MIC_L |
| LND454 | | AU_GND |
| LND455 | | MIC_R |
| LND456 | | AU_GND |
| LND457 | | AU_2.8V |
| LND462 | 8 | AU_2.8V |

VC-288 (15/17)
CN1005
(PAGE 4-42)

| | | |
|---|---|---|
| LND424 | 1 | DV_GND |
| LND425 | | TPA |
| LND426 | | NTPA |
| LND427 | | DV_GND |
| LND428 | | TPB |
| LND429 | | NTPB |
| LND430 | | DV_GND |
| LND431 | | N.C. |
| LND432 | | XS_JACK_IN |
| LND433 | | AV_JACK_IN |
| LND434 | | XHP_JACK_IN |
| LND435 | | XLANC_JACK_IN |
| LND436 | | LANC_SIG |
| LND437 | | LANC_DC |
| LND438 | | REG_GND |
| LND439 | | USB_DET |
| LND440 | | REG_GND |
| LND441 | | USB_D+ |
| LND442 | | USB_D- |
| LND443 | | REG_GND |
| LND444 | | REG_GND |
| LND445 | | VAP_DD_ON |
| LND446 | | REG_GND |
| LND447 | | C_RESET |
| LND448 | | YS_OUT |
| LND449 | | PS_OUT |
| LND450 | 27 | D_2.8V |

SE-132
CN4005
(PAGE 4-66)

| | | |
|---|---|---|
| LND465 | 1 | REG_GND |
| LND466 | | REG_GND |
| LND467 | | VAP_DD_ON |
| LND468 | | C_RESET |
| LND469 | | YAW_AD |
| LND470 | | REG_GND |
| LND471 | | PITCH_AD |
| LND472 | 8 | D_2.8V |

J401 S VIDEO ID-2

J402 LANC

J403 (HEAD PHONE)

J404 AUDIO/VIDEO ID-2

CN401 4P: 4 TPA, 3 NTPA, 2 TPB, 1 NTPB — CN401 DV

CN402 5P: 1 VCC, 2 D-, 3 D+, 4 ID, 5 GND — (USB)

D401 01ZA8.2(TPL3)

D402 01ZA8.2(TPL3)

D403 XX

LF401, LF402, LF403 XX

VDR401 1000p, VDR402 40p, VDR403 40p, VDR404 1000p, VDR405, VDR406 1000p, VDR407 1000p, VDR408 1000p, VDR409 40p

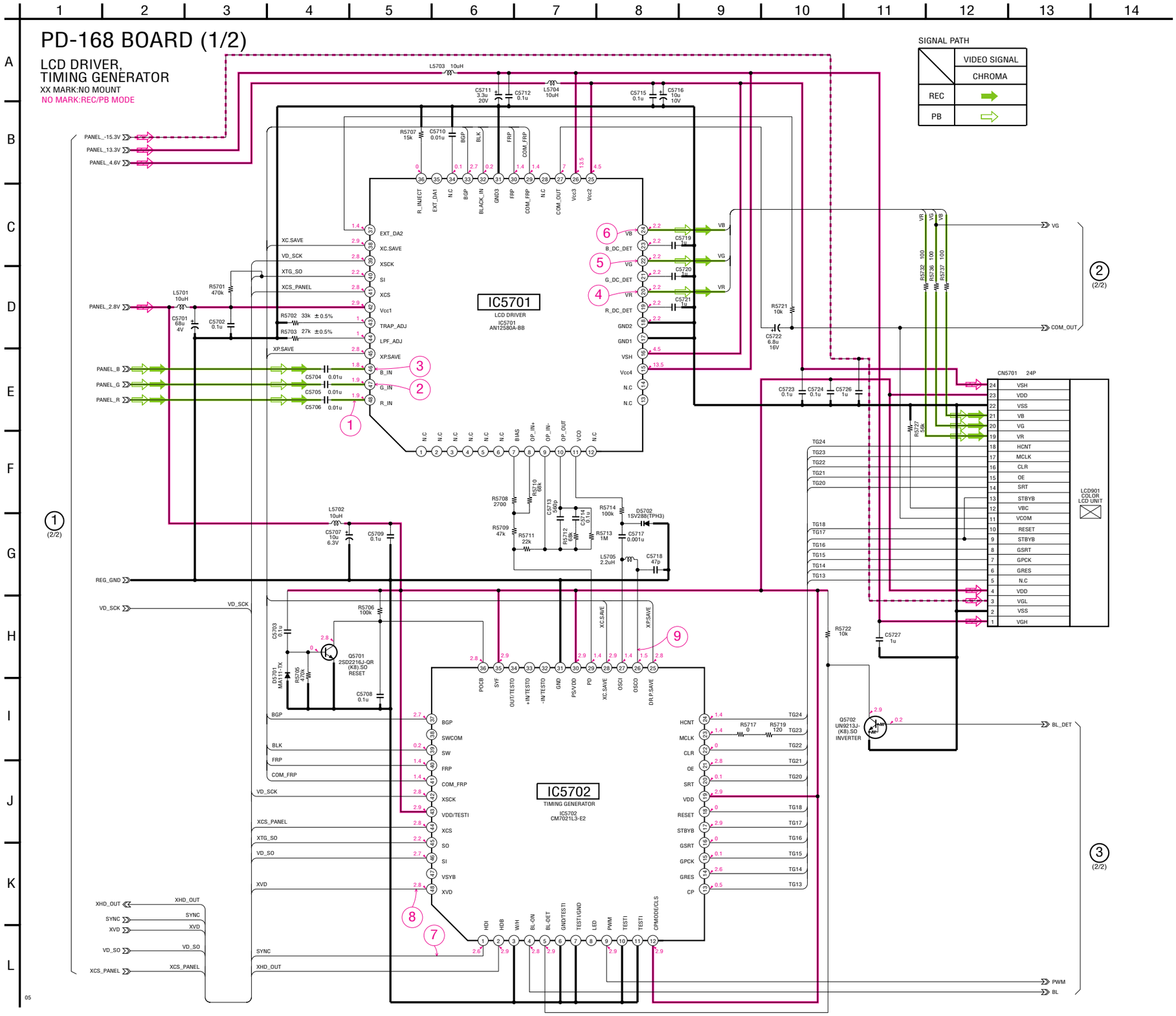
FB401, FB402, FB403, FB404, FB405, FB406, FB407

R401 0, R402 0, R403 0, R404 10k, R406 0, R407 10k, R408 0, R409 0, R410 0, R411 0

LND458 GND, LND459 GND, LND460 GND, LND461 GND, LND473 GND

**For Schematic Diagram**

• Refer to page 4-113 for printed wiring board.
• Refer to page 4-130 for waveforms.



**For Schematic Diagram**
• Refer to page 4-113 for printed wiring board.

# PD-168 BOARD (2/2)

## LCD DRIVER,BACKLIGHT

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

IC5801
LCD DRIVER
IC5801
BU9735K-E2

CN5804 21P
LCD902
CHARACTER DISPLAY

CK-116
CN5201
THROUGH THE
PC-088 HARNESS
(PAGE 4-69)

CN5806 10P
CN5802 20P
CN5803 7P
TA901
TOUCH PANEL

CK-116
CN5201
THROUGH THE
PC-087 HARNESS
(PAGE 4-69)

CN5805 5P
ND901
BACK LIGHT
INVERTER
TRANSFORMER
UNIT

SIGNAL PATH

| | VIDEO SIGNAL |
|---|---|
| | CHROMA |
| REC | ➡ |
| PB | ⇨ |

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié. |

**For Schematic Diagram**

• Refer to page 4-115 for printed wiring board.

# LB-080 BOARD

## EVF,EVF BACKLIGHT

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

SIGNAL PATH

| | VIDEO SIGNAL |
|---|---|
| | CHROMA |
| REC | ⇨ |
| PB | ⇨ |

D6101 CL-170R-CD-T (TALLY)

R6101 390

D6102 NSCW100-T39 (BACK LIGHT)

R6105 33k

R6104 3300

Q6101 RN4983FE(TPL3) SWITCH

IC6101 BACK LIGHT CONTROL

R6102 180k ± 0.5%

R6103 33k ±0.5%

IC6101 NJM2125F(TE2)

Q6102 HN1B04FE-Y/GR(TPL3) LED DRIVE

R6106 22 ±0.5%

TH6101

R6107 XX

C6101 0.1u

C6102 2.2u

CN6101 20P

| | |
|---|---|
| EVF_4.6V | 1 |
| XTALLY_LED | 2 |
| LED_DA | 3 |
| LED_ON/OFF | 4 |
| EVF_GND | 5 |
| EVF_GND | 6 |
| COM | 7 |
| VG | 8 |
| VR | 9 |
| VB | 10 |
| BLK | 11 |
| HCK1 | 12 |
| HCK2 | 13 |
| HST | 14 |
| EN | 15 |
| STB | 16 |
| VCK | 17 |
| VST | 18 |
| EVF_GND | 19 |
| EVF_VCC | 20 |

DB-014 (7/9)

CN7211 THROUGH THE FP-547 FLEXIBLE (PAGE 4-60)

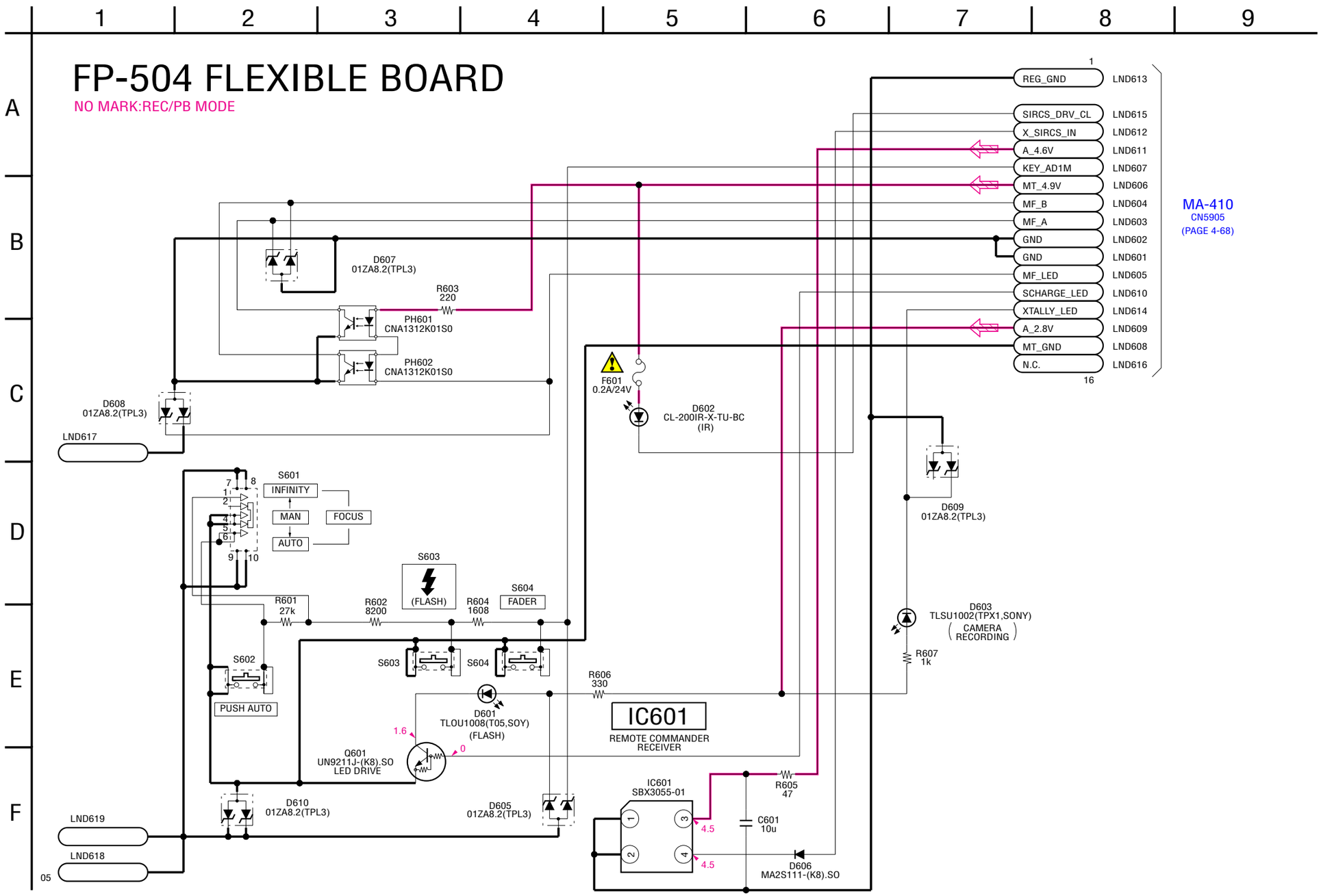
CN6102 16P

| | |
|---|---|
| 16 | COM |
| 15 | VG |
| 14 | VR |
| 13 | VB |
| 12 | BLK |
| 11 | HCK1 |
| 10 | HCK2 |
| 9 | HST |
| 8 | RGT |
| 7 | DWN |
| 6 | EN |
| 5 | STB |
| 4 | VCK |
| 3 | VST |
| 2 | VSS |
| 1 | VDD |

LCD903 COLOR EVF UNIT

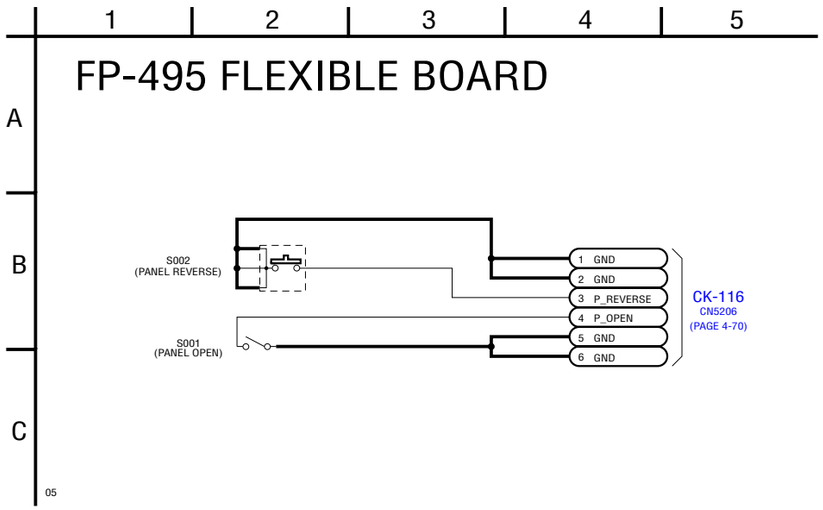
**For Schematic Diagram**

• Refer to page 4-117 for printed wiring board.

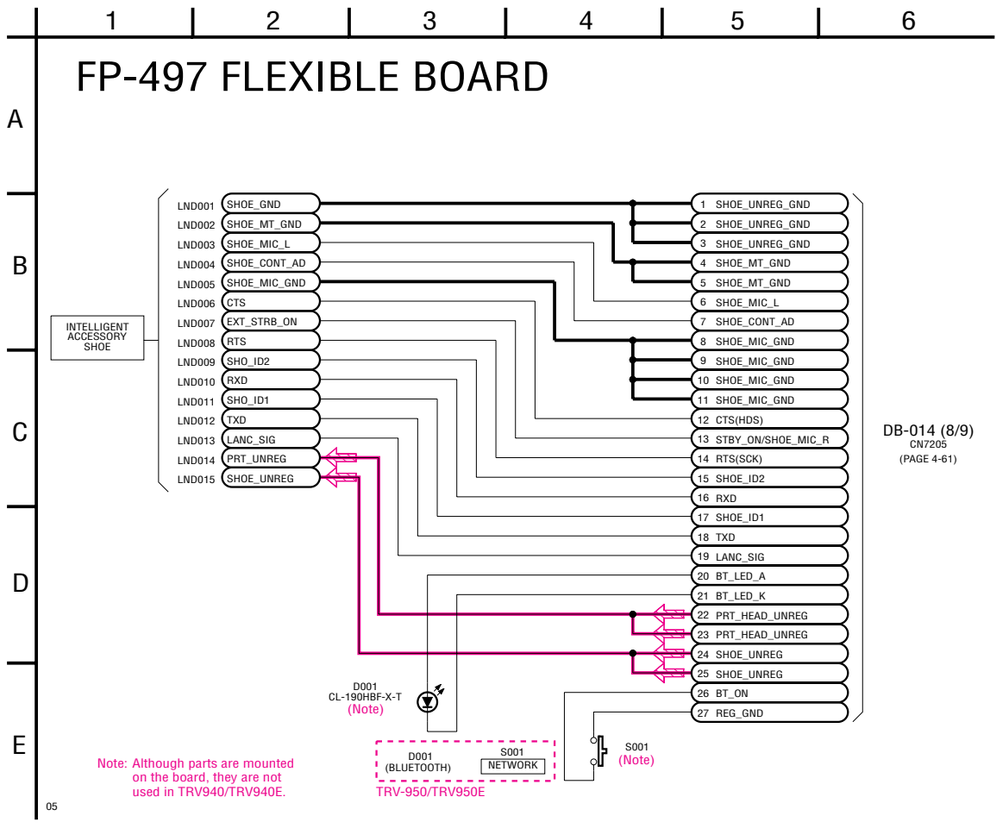


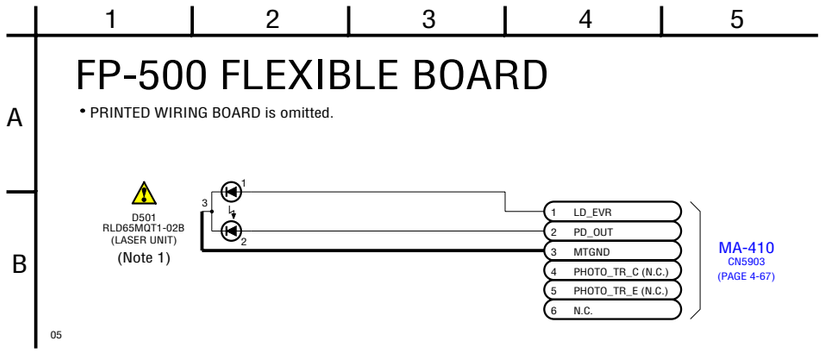

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié. |

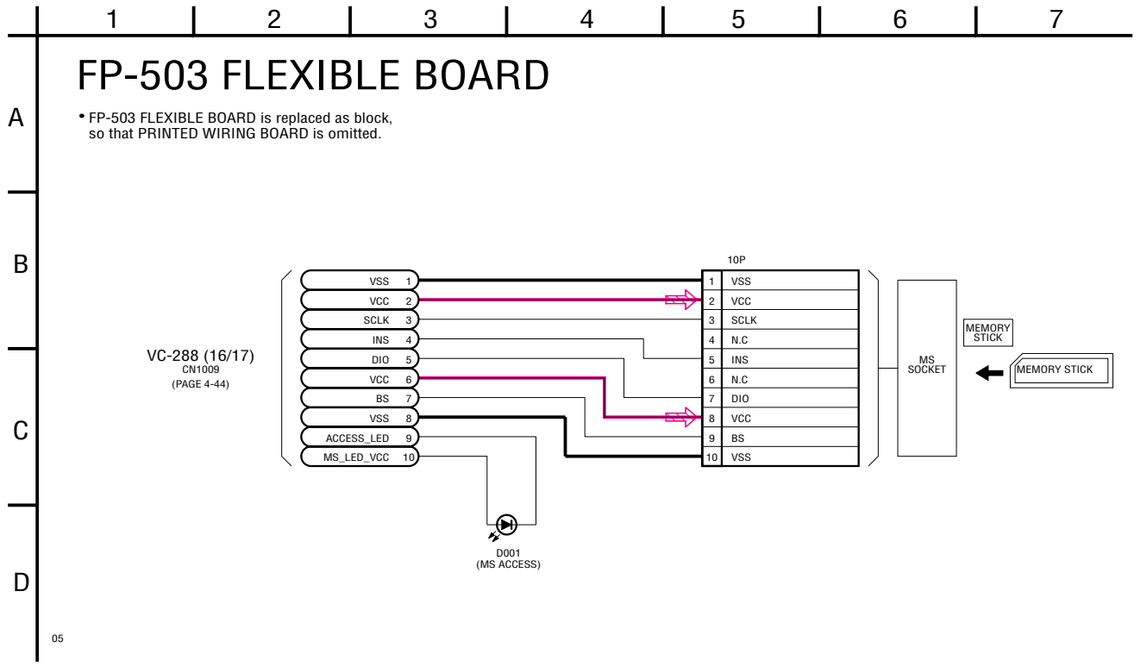
**For Schematic Diagram**
• Refer to page 4-121 for printed wiring board.




**For Schematic Diagram**
• Refer to page 4-122 for printed wiring board.



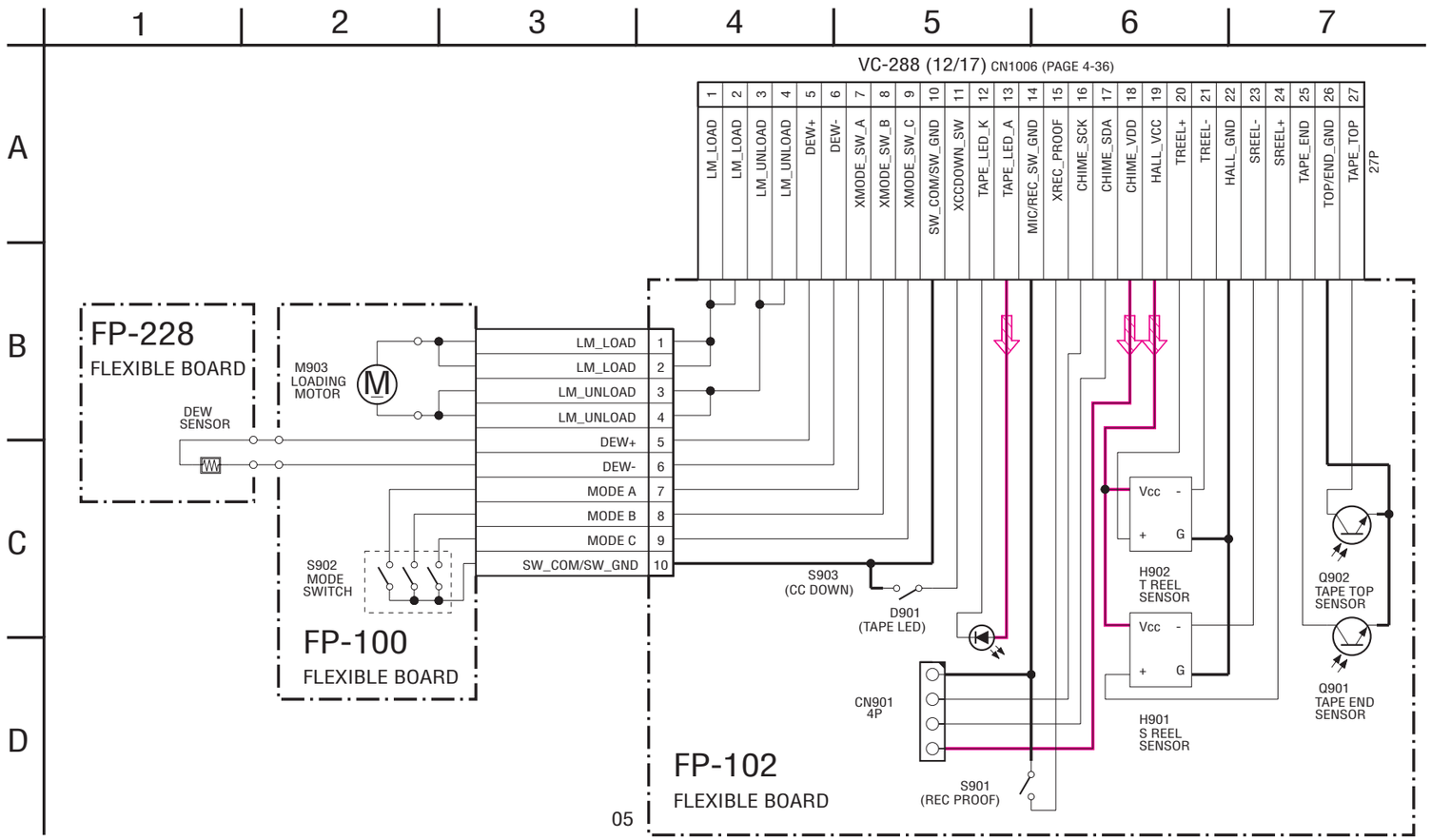




(Note 1) Be sure to read "SERVICE NOTE" on page 1-3 when replacing the laser unit (D501).

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié. |

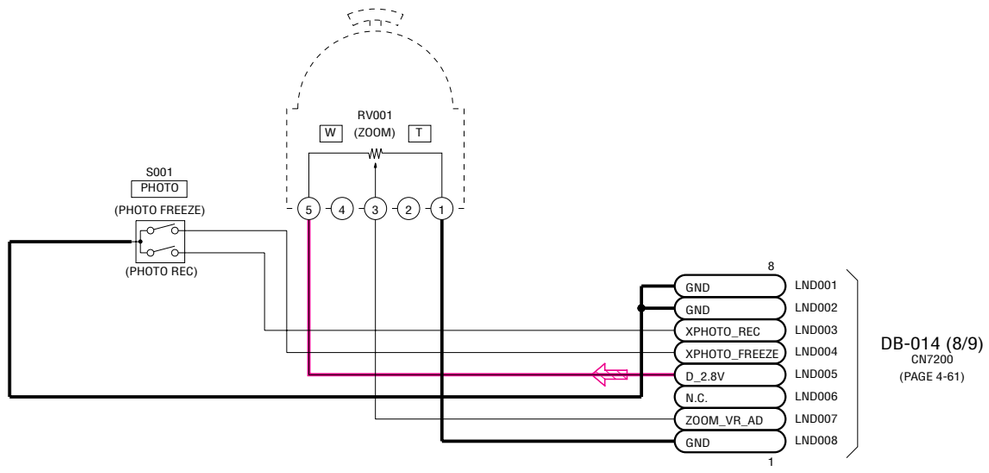
**For Schematic Diagram**

• Refer to page 4-123 for printed wiring board.



# CONTROL SWITCH BLOCK (CF-1870)

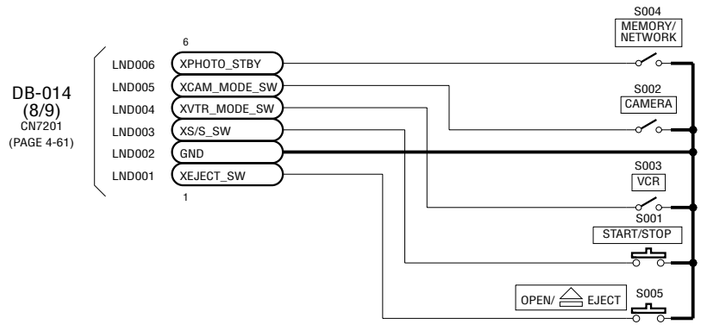
• CONTROL SWITCH BLOCK (CF-1870) is replaced as block, so that PRINTED WIRING BOARD is omitted.




05

# CONTROL SWITCH BLOCK (PS-1870)

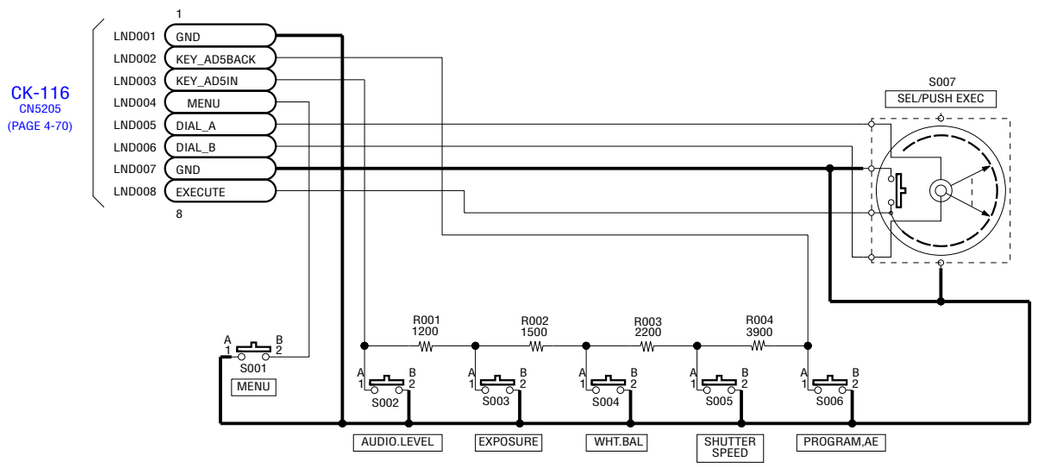
• CONTROL SWITCH BLOCK (PS-1870) is replaced as block, so that PRINTED WIRING BOARD is omitted.




05

# CONTROL SWITCH BLOCK (KP-1870)

• CONTROL SWITCH BLOCK (KP-1870) is replaced as block, so that PRINTED WIRING BOARD is omitted.




05

COVER

4-3. PRINTED WIRING BOARDS

## 4-3. PRINTED WIRING BOARDS

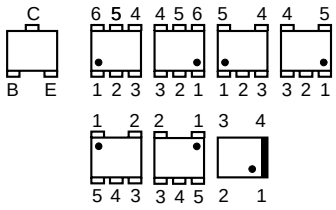
**THIS NOTE IS COMMON FOR WIRING BOARDS**
**(In addition to this, the necessary note is printed in each block)**

**(For printed wiring boards)**

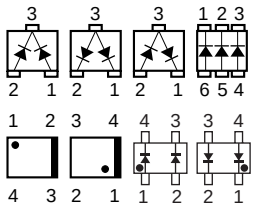
- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor




Diode



COVER

# 4-3. PRINTED WIRING BOARDS

Link


| | |
|---|---|
| CD-389 BOARD (SIDE A) | JK-222 BOARD (SIDE B) |
| CD-389 BOARD (SIDE B) | PD-168 BOARD |
| SE-132 BOARD | LB-080 BOARD |
| MA-410 BOARD | FP-504 FLEXIBLE BOARD (SIDE A) |
| CK-116 BOARD (SIDE A) | FP-504 FLEXIBLE BOARD (SIDE B) |
| CK-116 BOARD (SIDE B) | FP-495, FP-497 FLEXIBLE BOARD |
| JK-222 BOARD (SIDE A) | FP-100, FP-102, FP-228 FLEXIBLE BOARD |

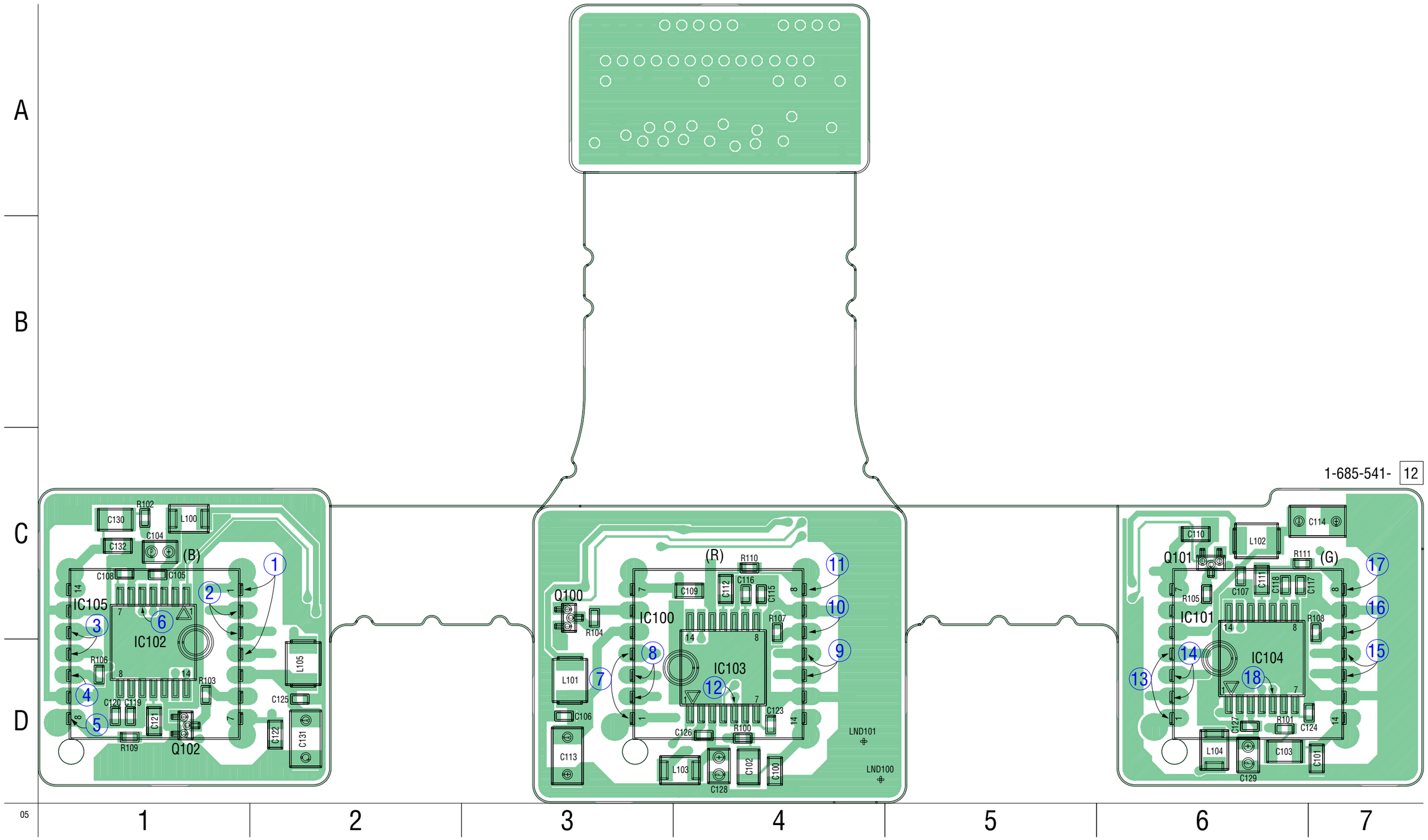
| | | |
|---|---|---|
| COMMON NOTE FOR PRINTED WIRING BOARDS | | WAVEFORMS |
| MOUNTED PARTS LOCATION | CIRCUIT BOARDS LOCATION | FLEXIBLE BOARDS LOCATION |

## CD-389 (CCD IMAGER)

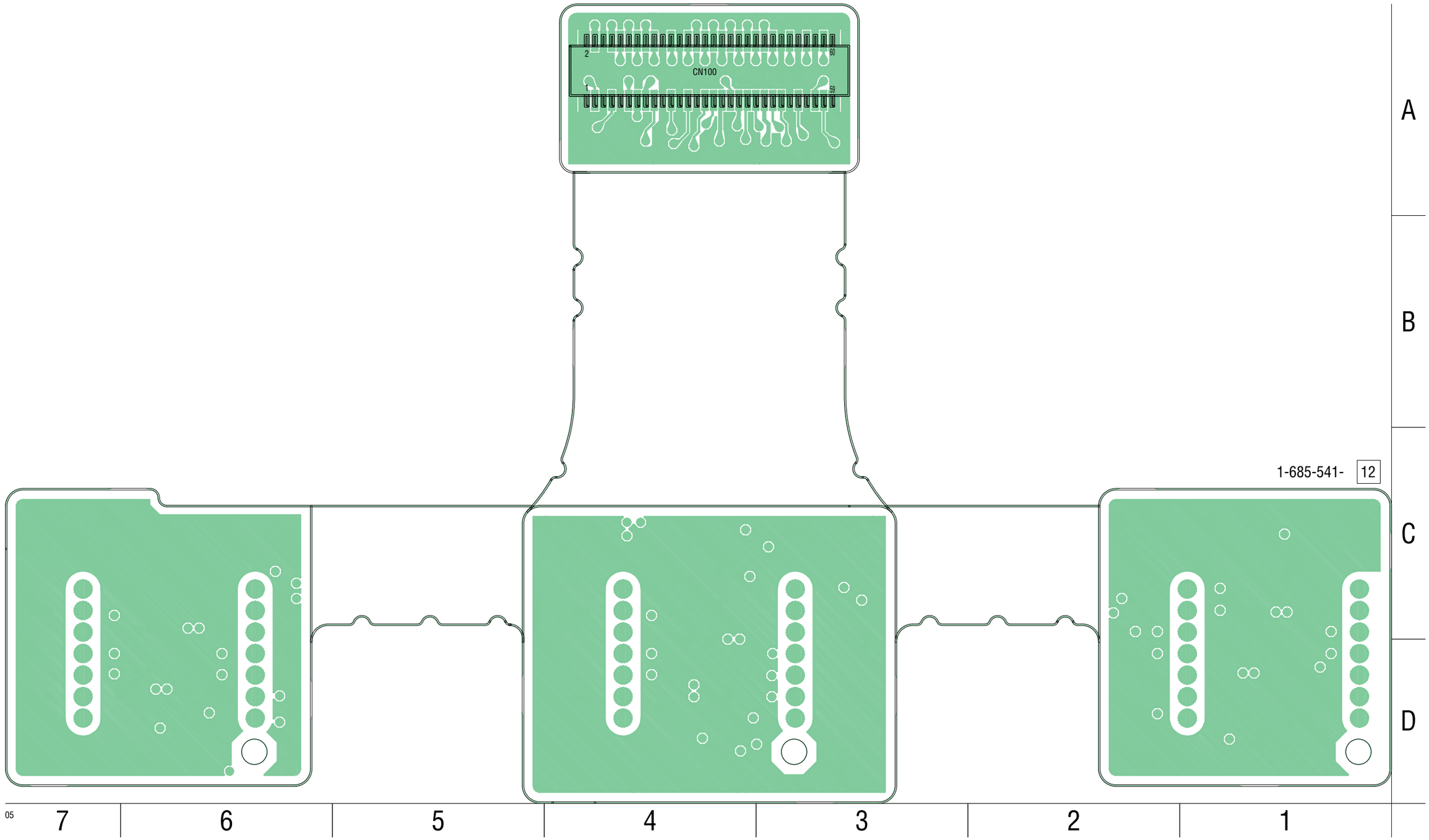
**For Printed Wiring Board.**

- : Uses unleaded solder.
- CD-389 board is six-layer print board. However, the patterns of layers 2 to 5 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.
- See page 4-131 for printed parts location.

# CD-389 BOARD (SIDE A)



# CD-389 BOARD (SIDE B)



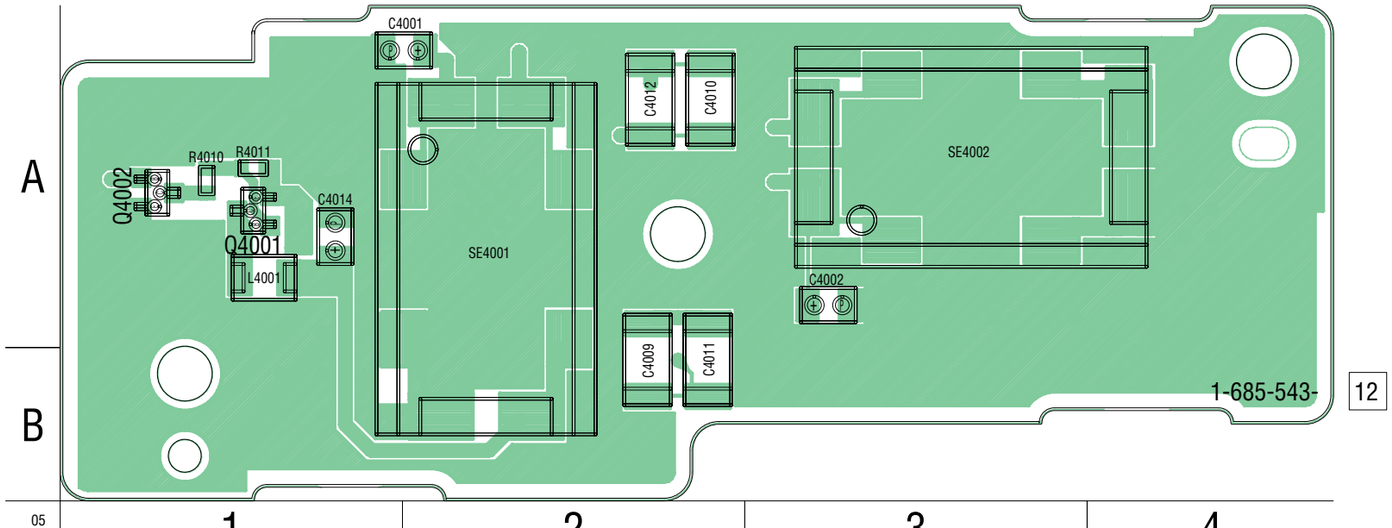
Printed wiring boards of the VC-288, DB-014 boards are not shown.
Pages from 4-93 to 4-100 are not shown.

## SE-132 (PITCH/YAW SENSOR)

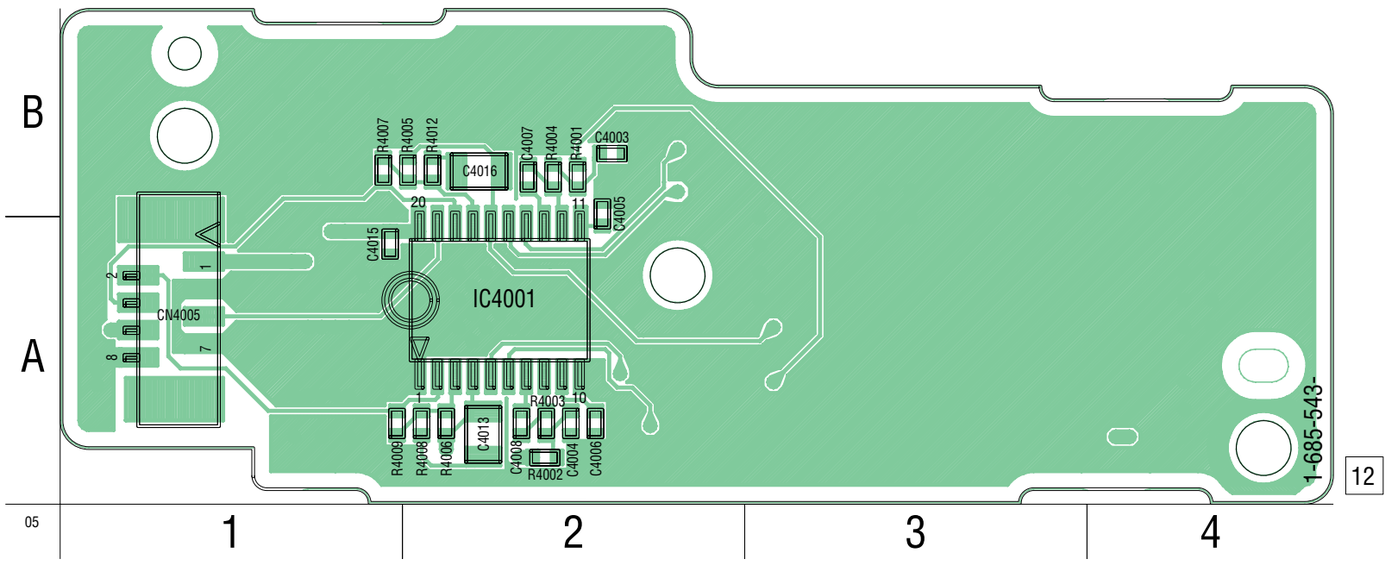
**For Printed Wiring Board.**

- LF :Uses unleaded solder.
- SE-132 board is six-layer print board. However, the patterns of layers 2 to 5 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.
- See page 4-136 for printed parts location.

SE-132 BOARD (SIDE A)




SE-132 BOARD (SIDE B)



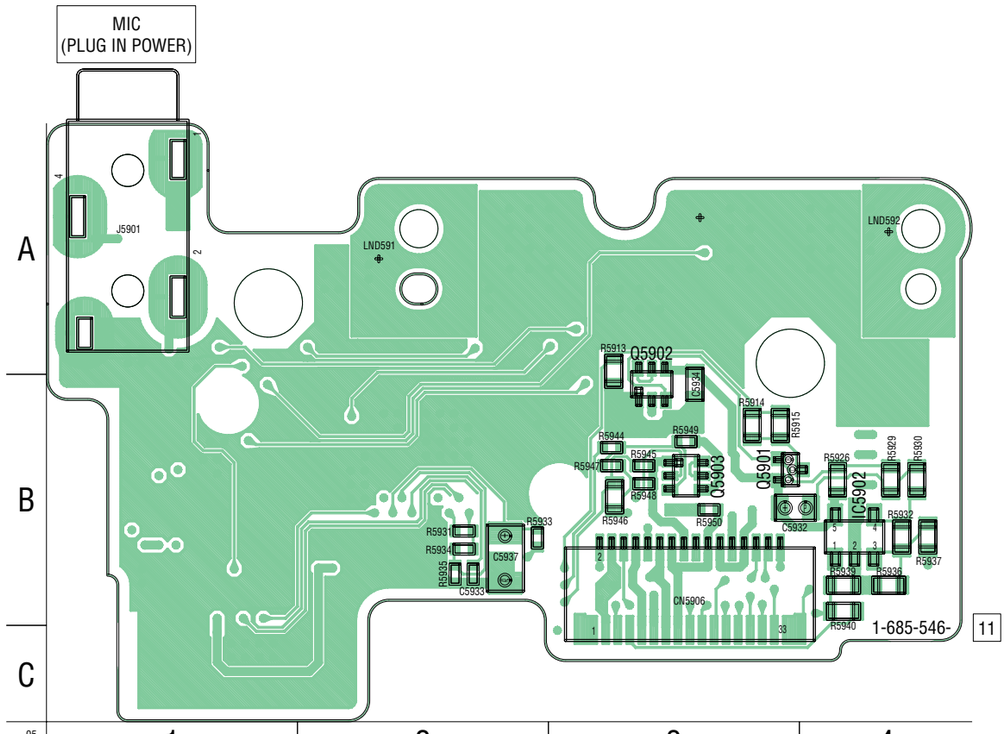
## MA-410
## (MIC AMP, AF LASER CONTROL)

**For Printed Wiring Board.**

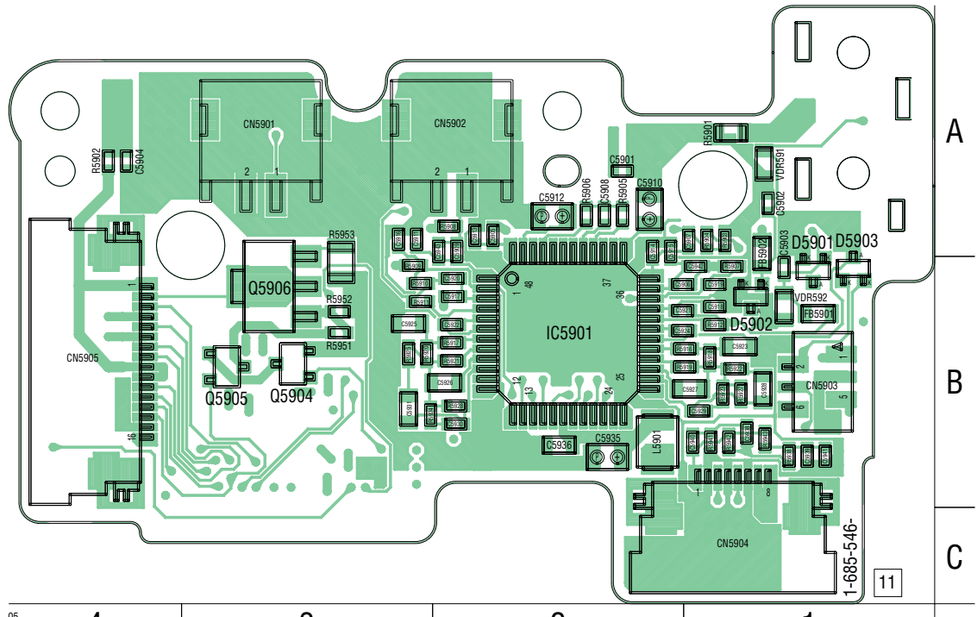
- ▲ :Uses unleaded solder.
- MA-410 board is four-layer print board. However, the patterns of layers 2 to 3 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.
- See page 4-136 for printed parts location.

**Suffix number** 11

### MA-410 BOARD (SIDE A)

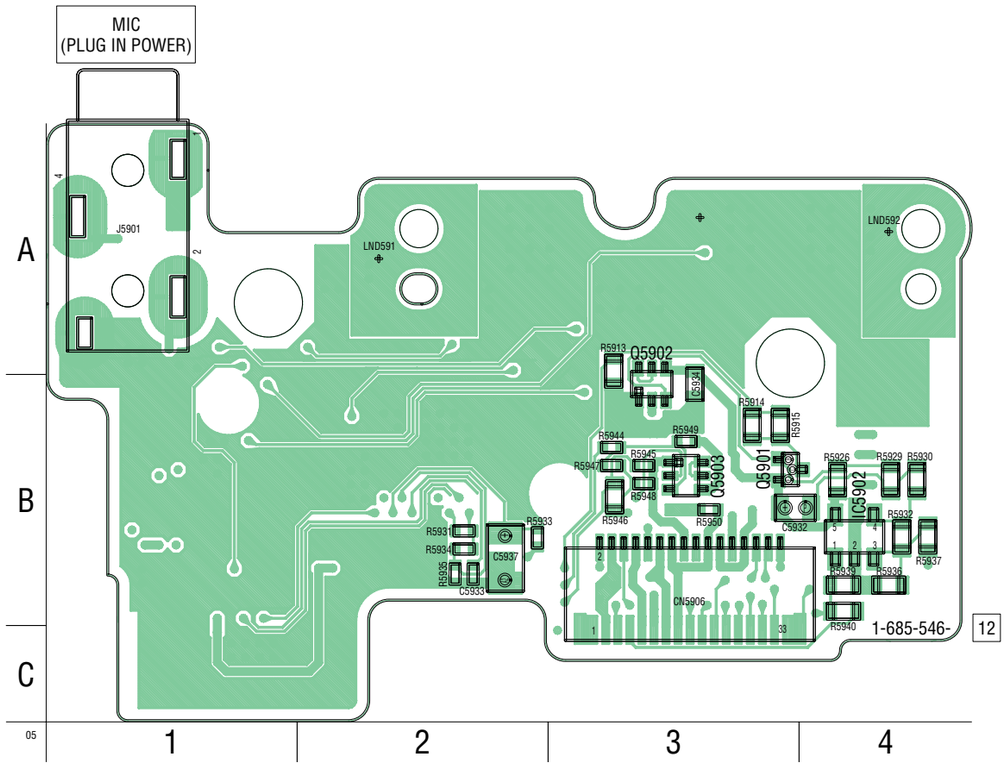



### MA-410 BOARD (SIDE B)

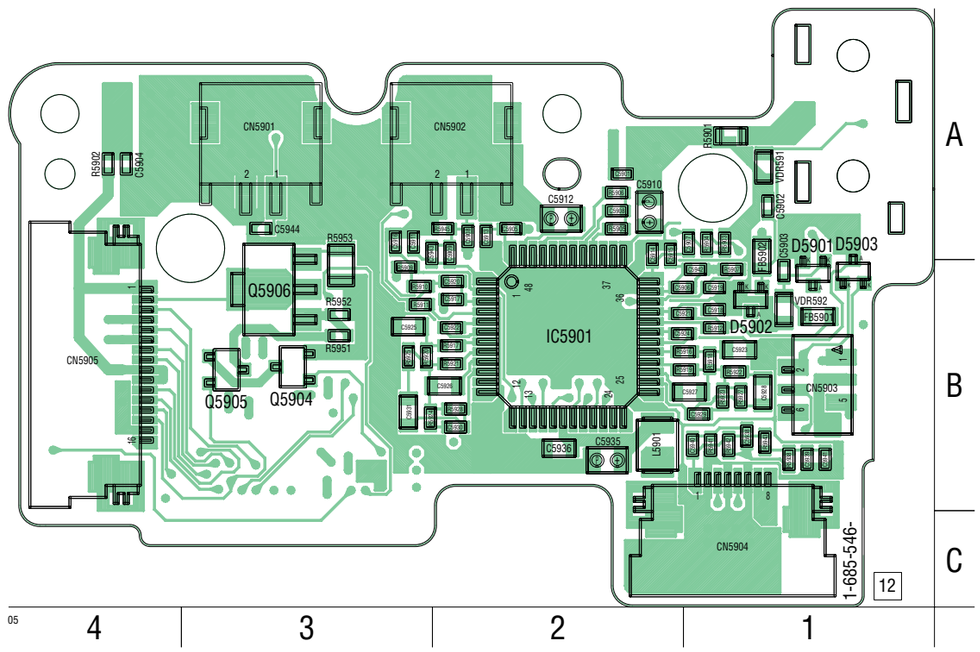



**Suffix number** 12

### MA-410 BOARD (SIDE A)




### MA-410 BOARD (SIDE B)



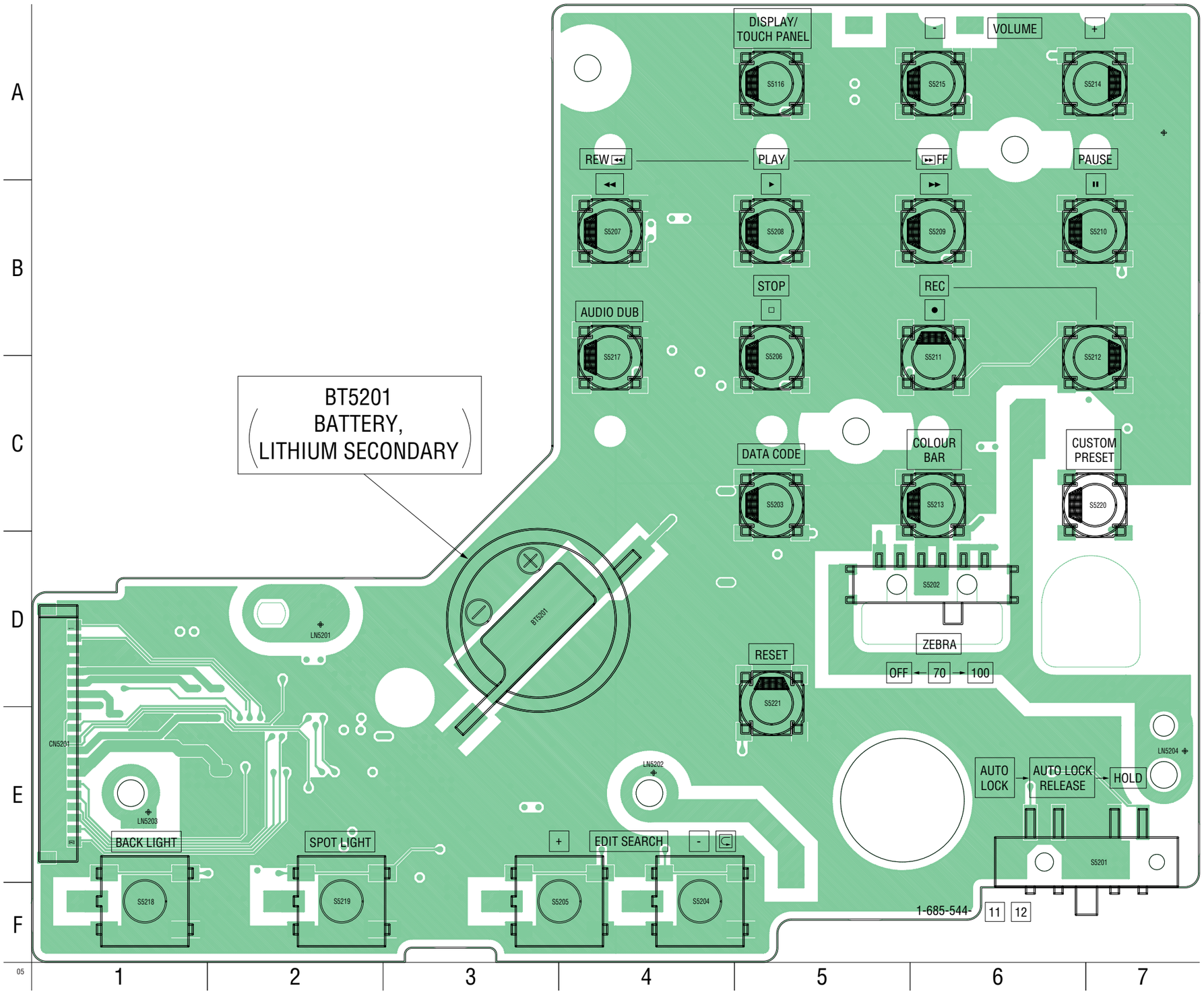
## CK-116 (CONTROL SWITCH)

**For Printed Wiring Board.**

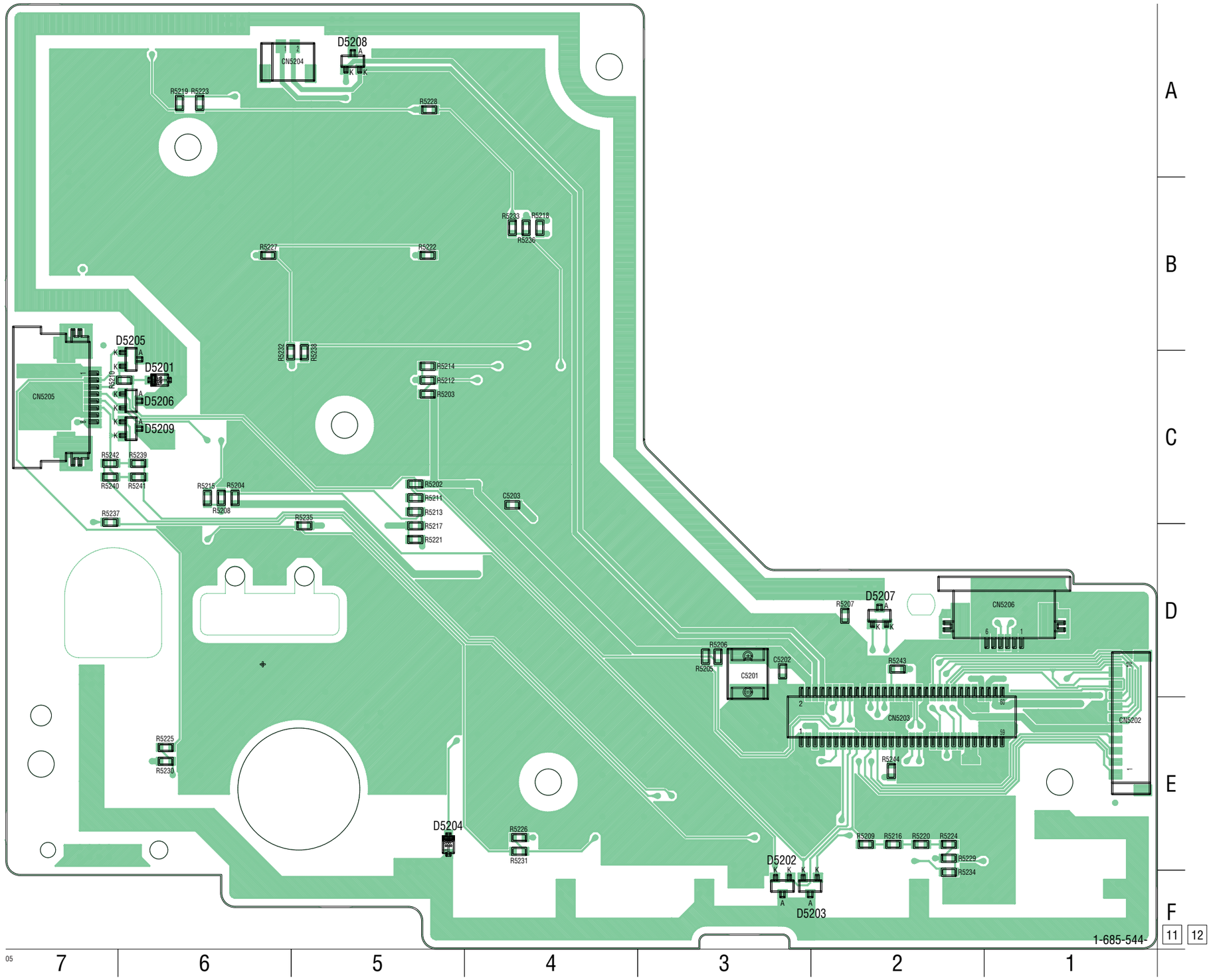
- LF :Uses unleaded solder.
- CK-116 board is four-layer print board. However, the patterns of layers 2 to 3 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.
- See page 4-136 for printed parts location.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or eqivalent type.

# CK-116 BOARD (SIDE A)



## CK-116 BOARD (SIDE B)



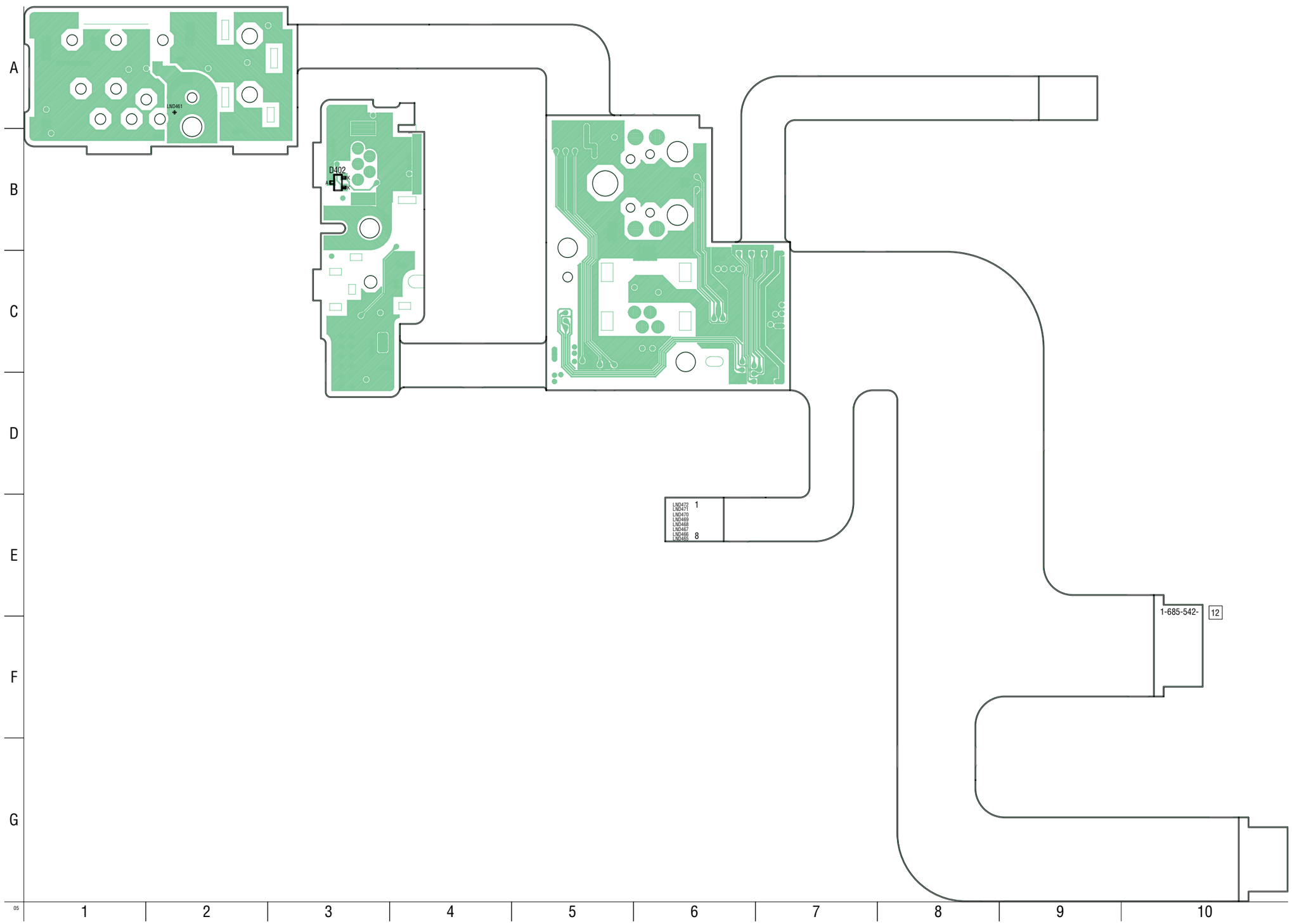

CK-116 (SIDE B)

## JK-222 (AV IN/OUT, DV/USB CONNECTOR)

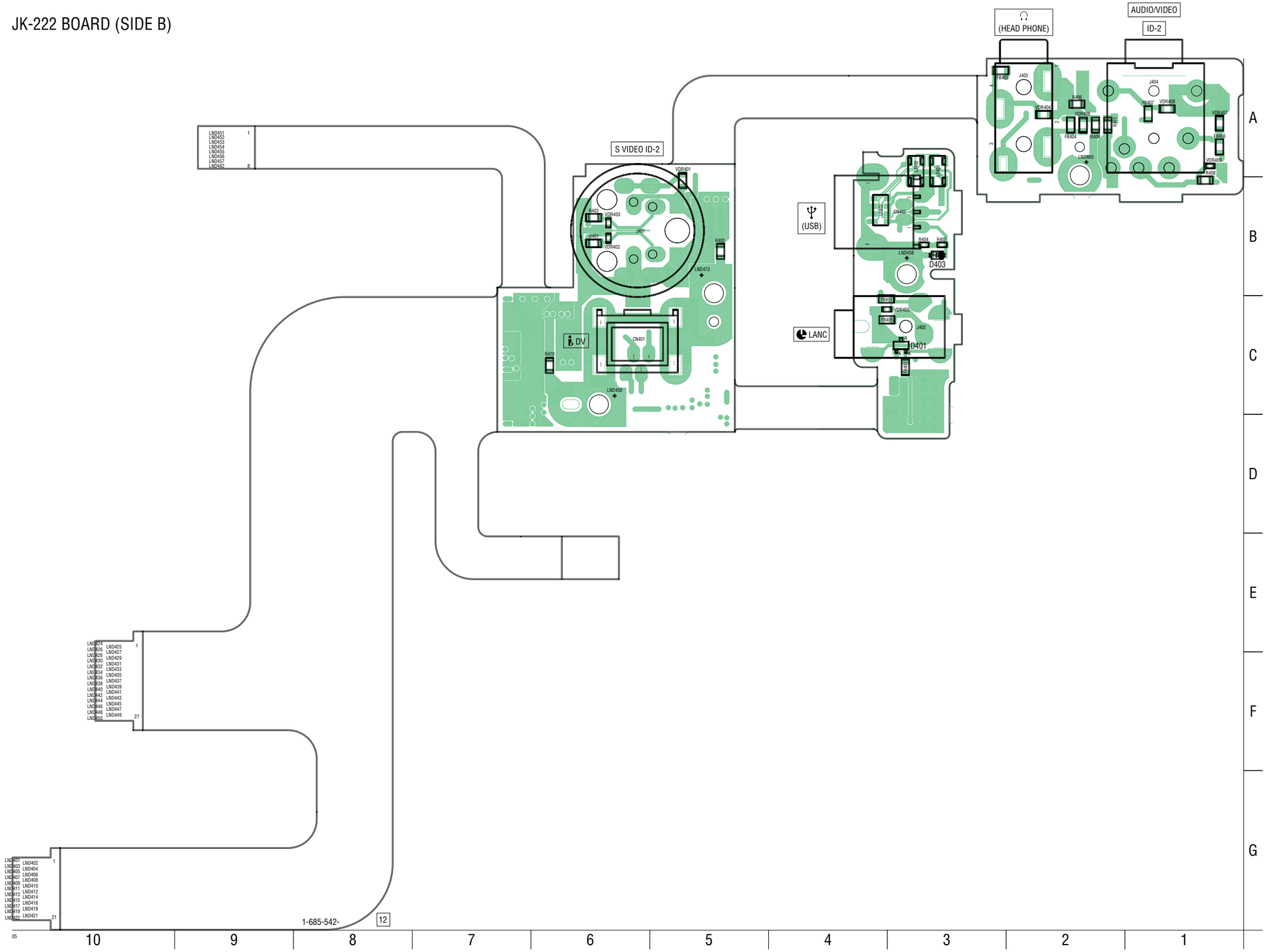
**For Printed Wiring Board.**

- : Uses unleaded solder.
- JK-222 board is six-layer print board. However, the patterns of layers 2 to 5 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.
- See page 4-136 for printed parts location.

JK-222 BOARD (SIDE A)



JK-222 BOARD (SIDE B)

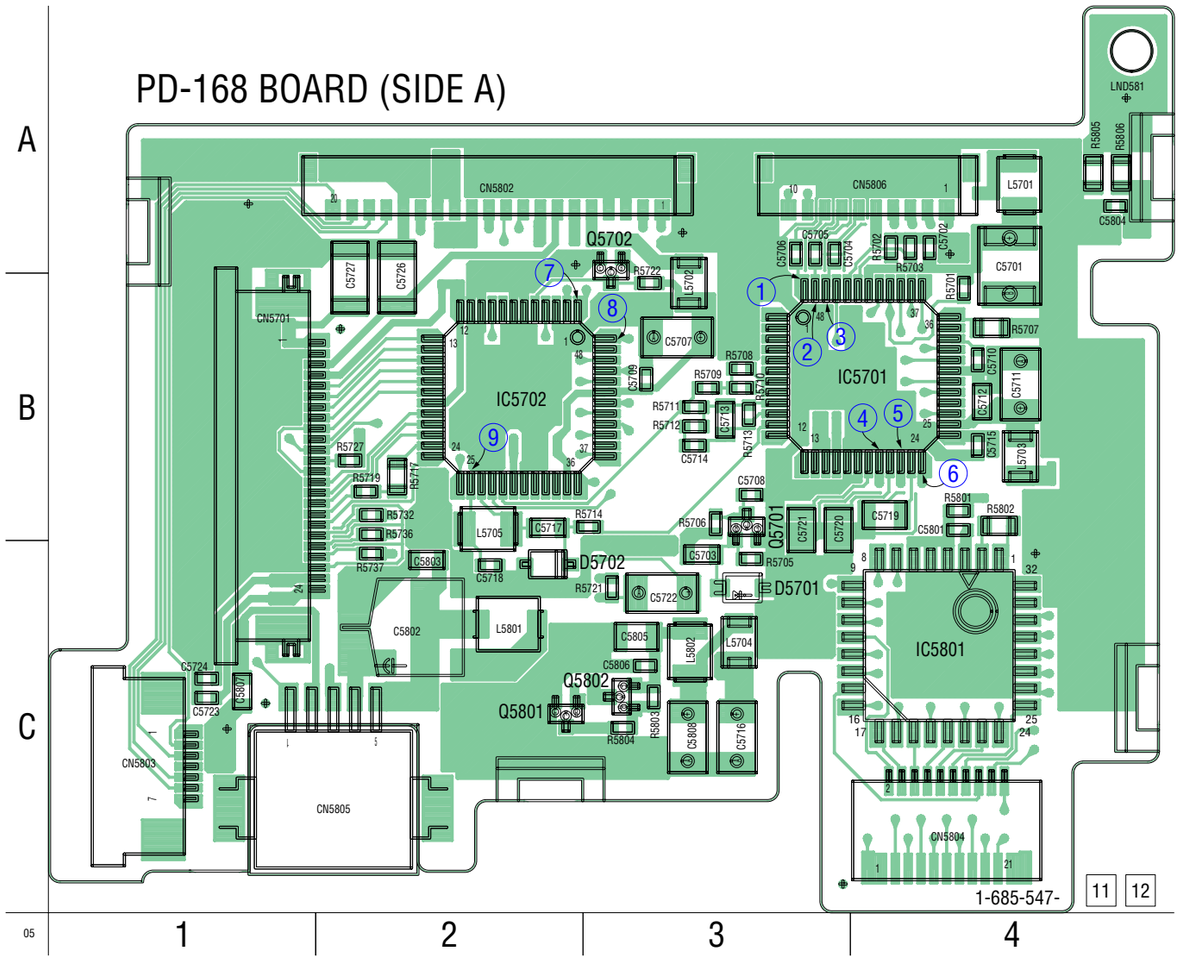


## PD-168 (LCD DRIVER, TIMING GENERATOR, BACKLIGHT)

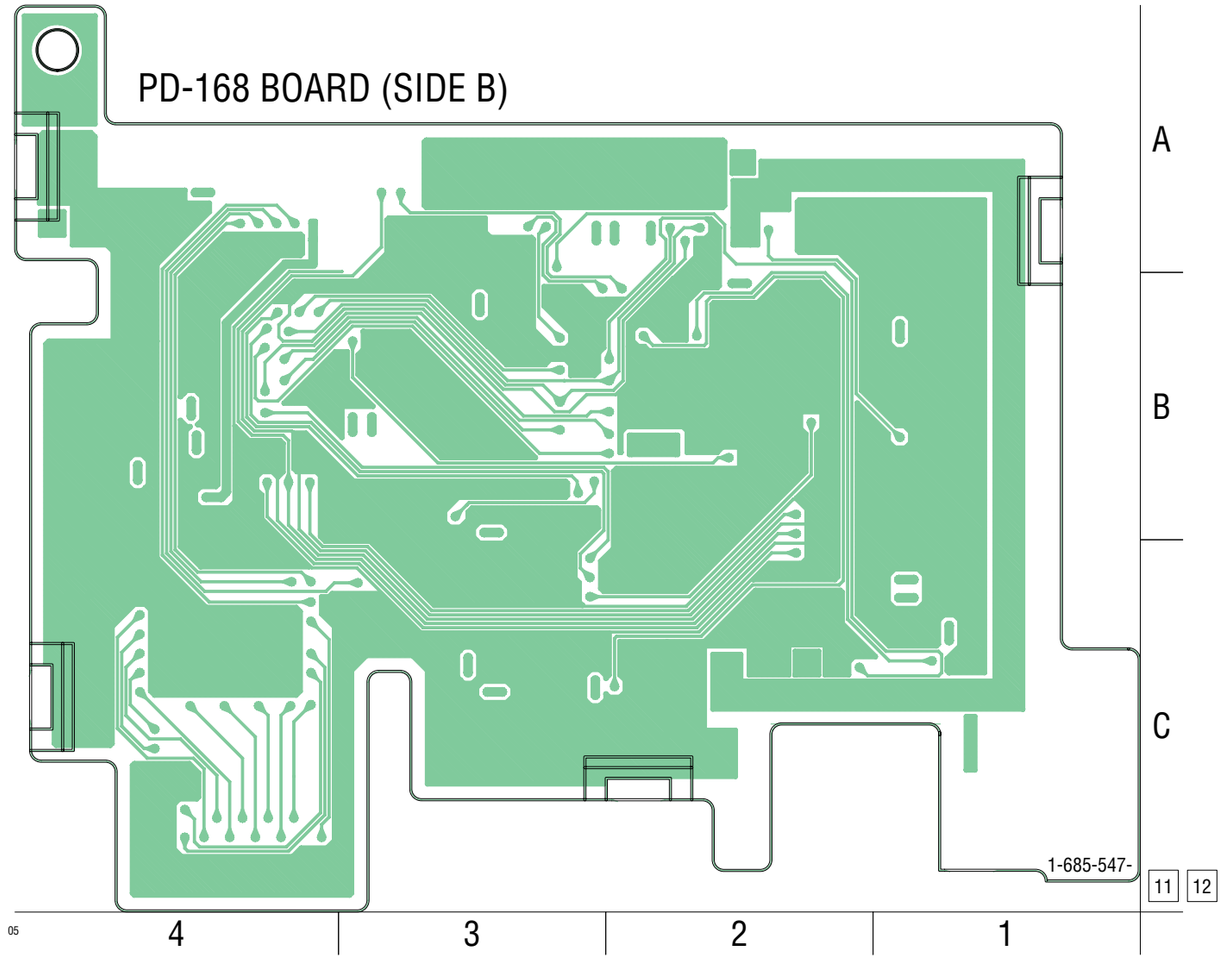
**For Printed Wiring Board.**

- : Uses unleaded solder.
- PD-168 board is four-layer print board. However, the patterns of layers 2 to 3 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.
- See page 4-136 for printed parts location.

PD-168 BOARD (SIDE A)




PD-168 BOARD (SIDE B)

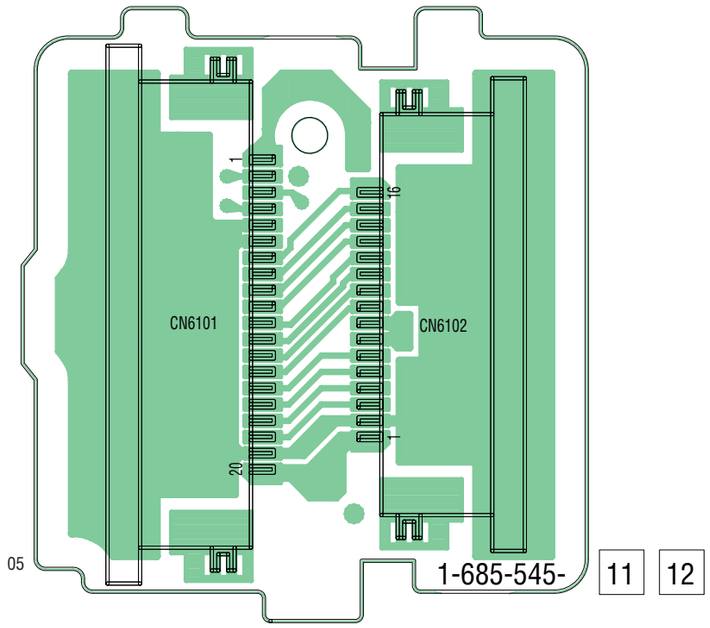


## LB-080 (EVF, EVF BACKLIGHT)

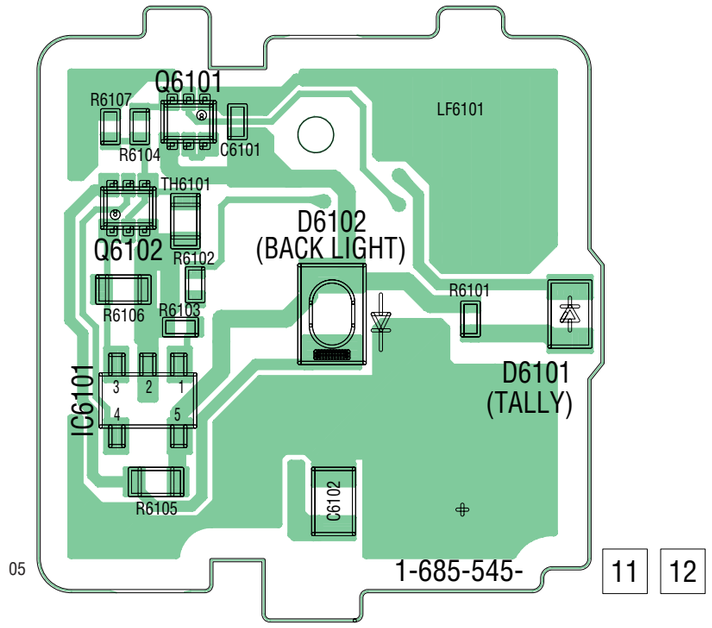
**For Printed Wiring Board.**

- : Uses unleaded solder.
- LB-080 board is four-layer print board. However, the patterns of layers 2 to 3 have not been included in the diagram.
- There are a few cases that the part isn't mounted in this model is printed on this diagram.

# LB-080 BOARD (SIDE A)




# LB-080 BOARD (SIDE B)

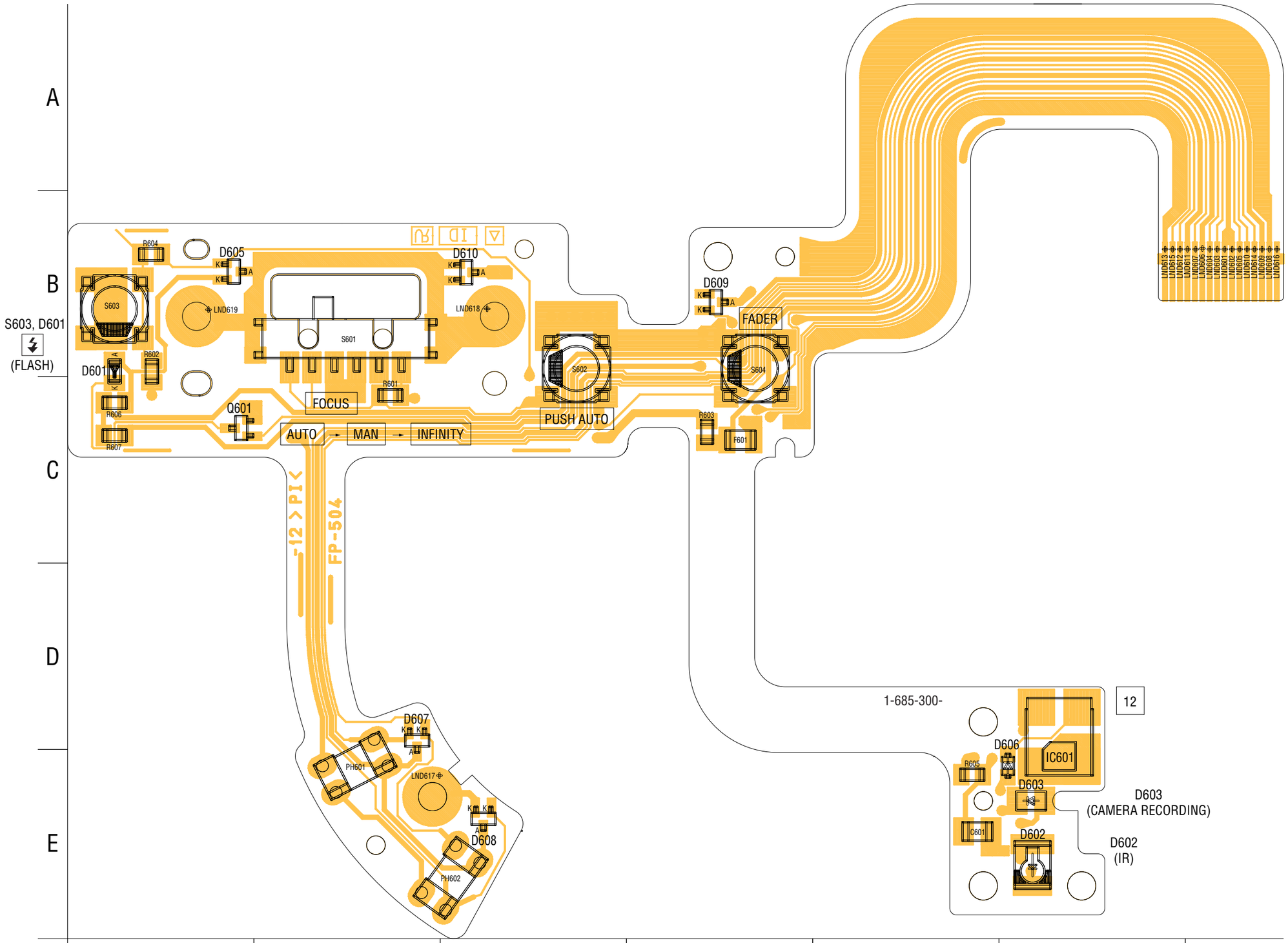


**FP-504 FLEXIBLE**

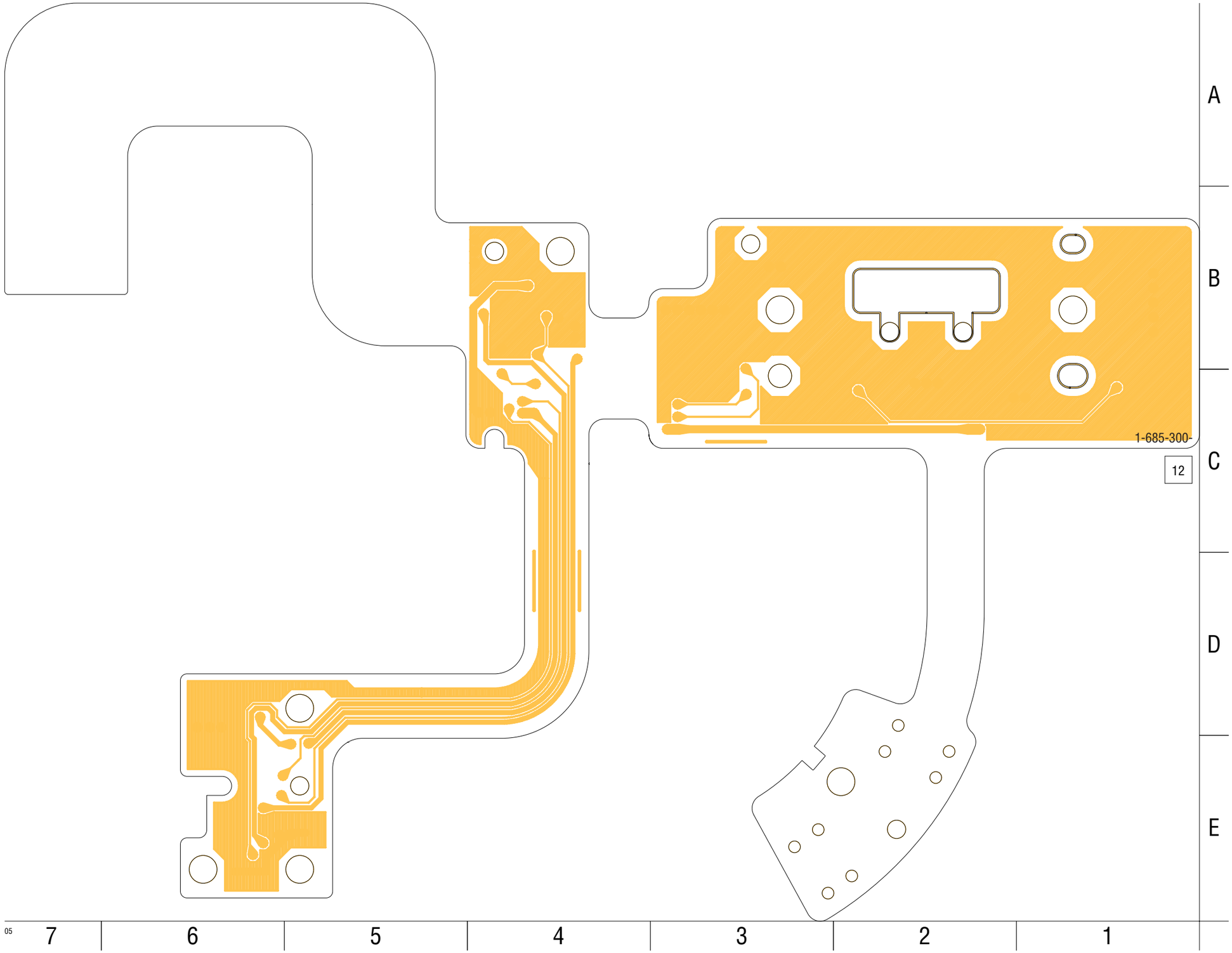
**For Printed Wiring Board.**

• See page 4-137 for printed parts location.

## FP-504 FLEXIBLE BOARD (SIDE A)



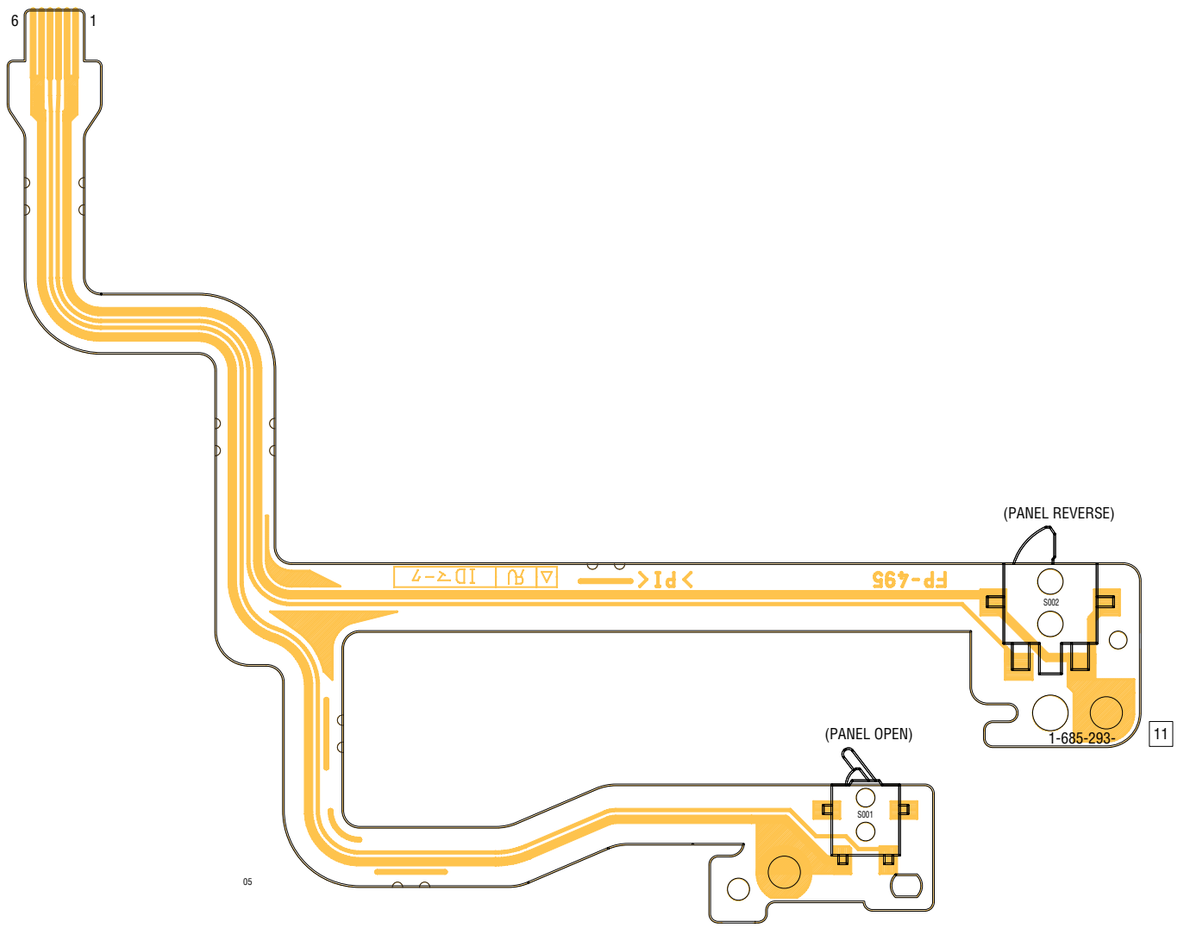
## FP-504 FLEXIBLE BOARD (SIDE B)



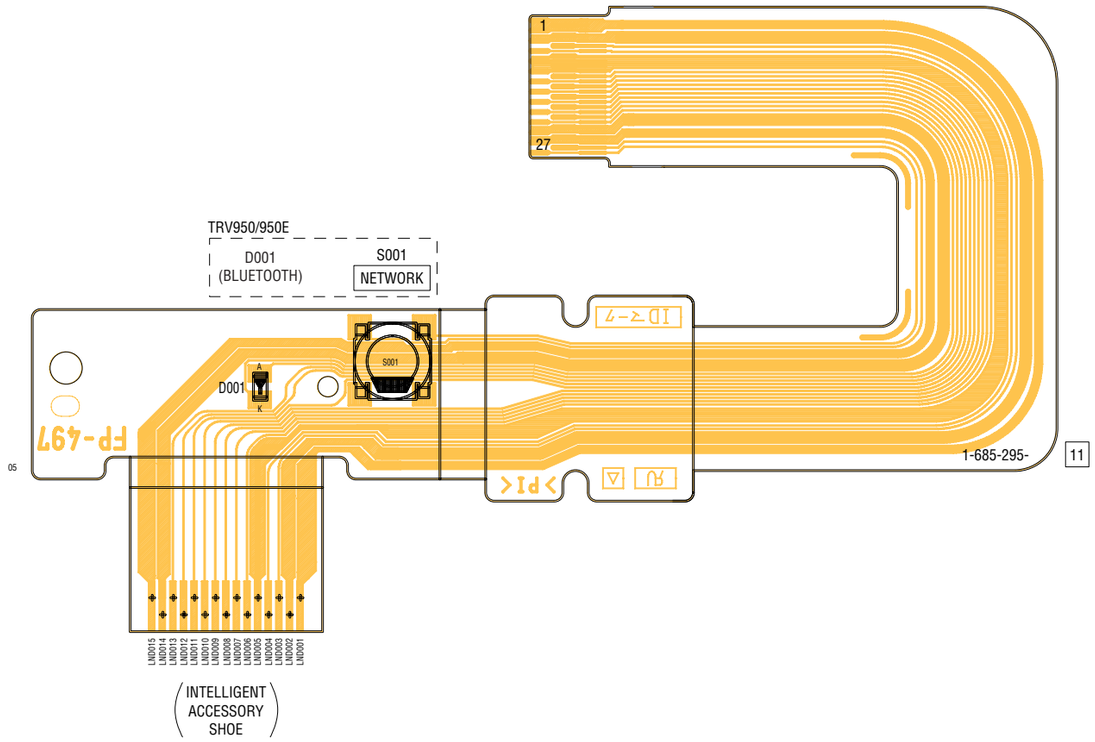

**FP-504 (SIDE B)**

**FP-495, FP-497 FLEXIBLE**

## FP-495 FLEXIBLE BOARD

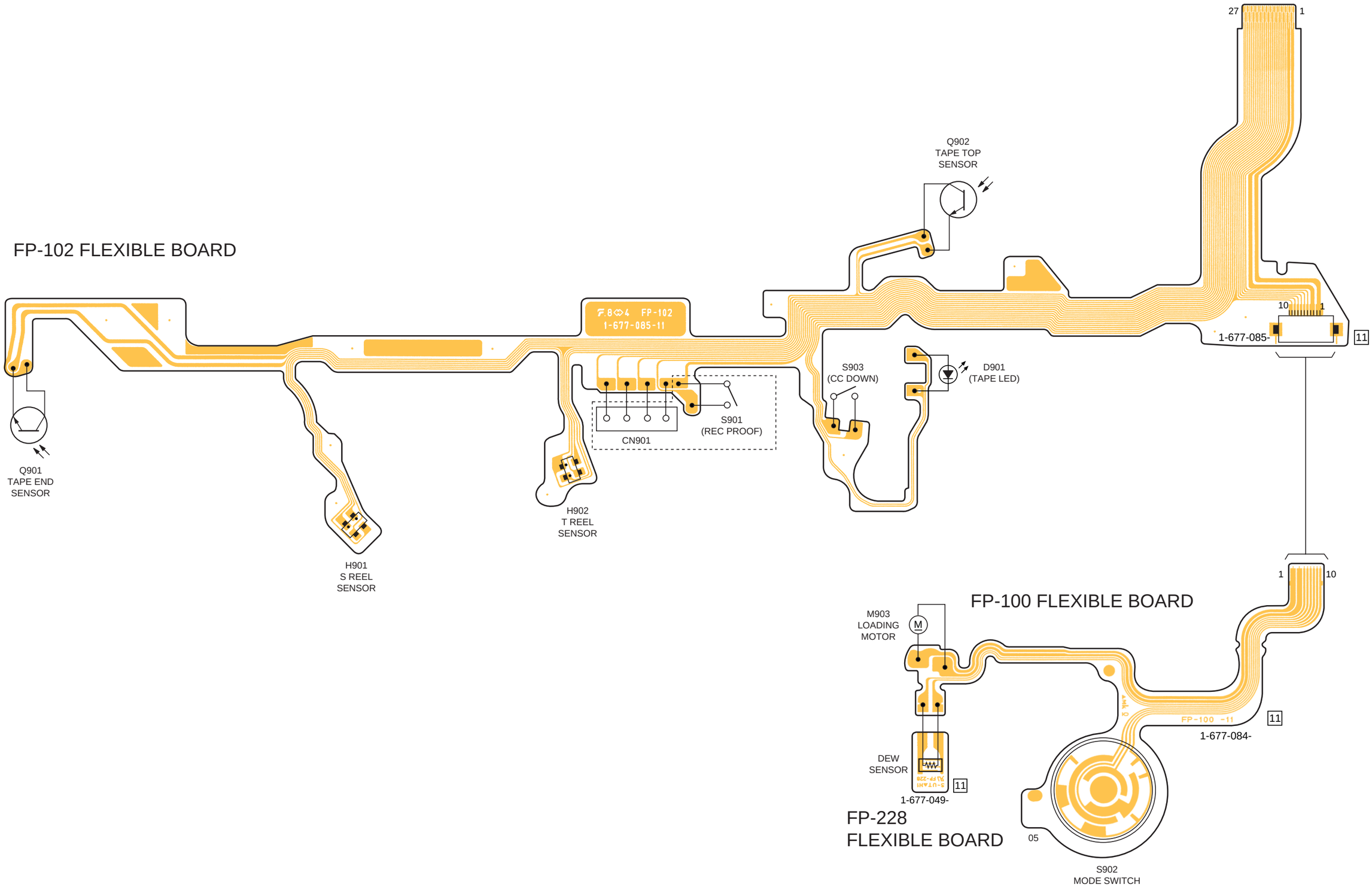



## FP-497 FLEXIBLE BOARD



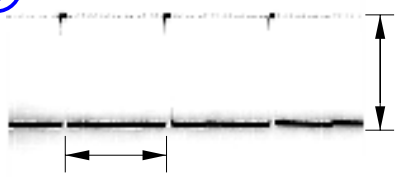
**FP-100, FP-102, FP-228 FLEXIBLE**

## FP-102 FLEXIBLE BOARD

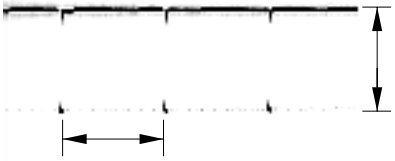


## 4-4. WAVEFORMS

**CD-389 BOARD (1/2)**

① 

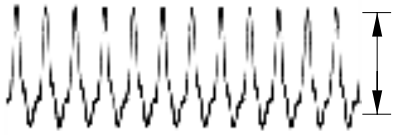
44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)
IC105 ①, ④ REC

② 

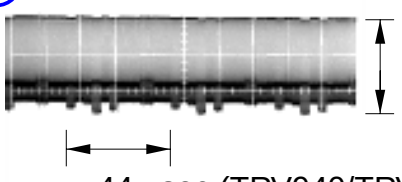
44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)
IC105 ②, ③ REC

③

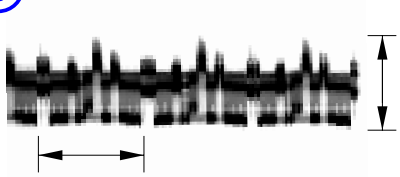
30 nsec (TRV940/TRV950)
37 nsec (TRV940E/TRV950E)
IC105 ⑪, ⑫ REC

④ 

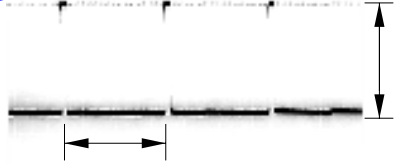
33 MHz (TRV940/TRV950)
27 MHz (TRV940E/TRV950E)
IC105 ⑩ REC

⑤ 

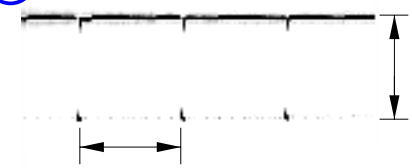
44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)
IC105 ⑧ REC

⑥ 

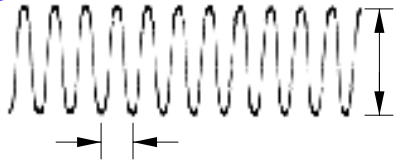
44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)
IC102 ⑤ REC

⑦ 

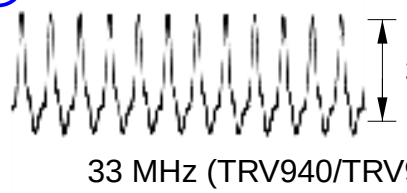
44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)
IC100 ①, ④ REC

⑧ 

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)
IC100 ②, ③ REC

⑨ 

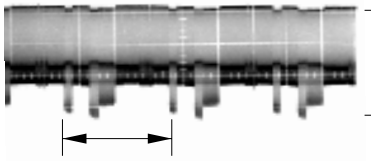
30 nsec (TRV940/TRV950)
37 nsec (TRV940E/TRV950E)
IC100 ⑪, ⑫ REC

⑩ 

33 MHz (TRV940/TRV950)
27 MHz (TRV940E/TRV950E)
IC100 ⑩ REC

CD-389 BOARD (2/2)

⑪

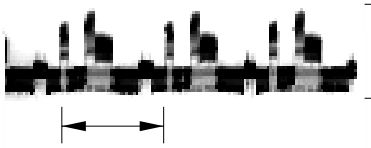


360 mVp-p

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)

IC100 ⑧ REC

⑫

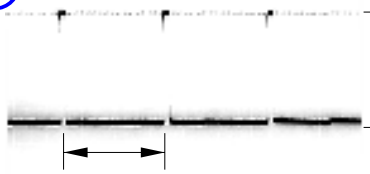


200 mVp-p

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)

IC103 ⑤ REC

⑬

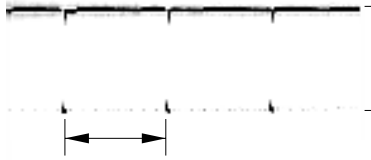


7.6 Vp-p

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)

IC101 ①, ④ REC

⑭



7.6 Vp-p

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)

IC101 ②, ③ REC

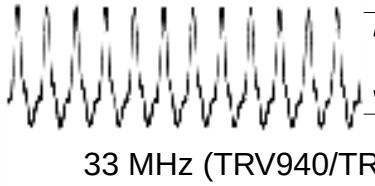
⑮

5.1 Vp-p

30 nsec (TRV940/TRV950)
37 nsec (TRV940E/TRV950E)

IC101 ⑪, ⑫ REC

⑯

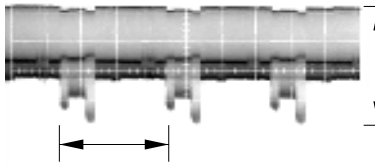


3.6 Vp-p

33 MHz (TRV940/TRV950)
27 MHz (TRV940E/TRV950E)

IC101 ⑩ REC

⑰

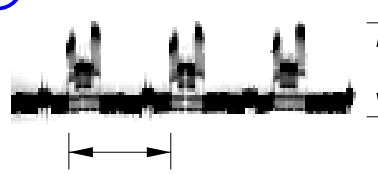


470 mVp-p

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)

IC101 ⑧ REC

⑱



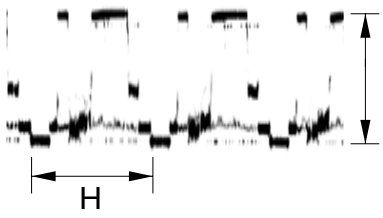
260 mVp-p

44 µsec (TRV940/TRV950)
54 µsec (TRV940E/TRV950E)

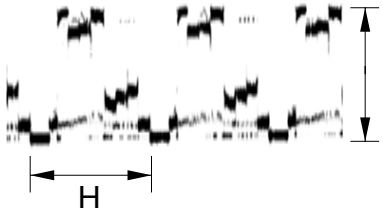
IC104 ⑤ REC

Waveforms of the VC-288, DB-014 boards are not shown.
Pages 4-127 to 4-129 are not shown.

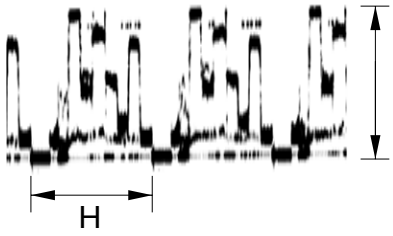
PD-168 BOARD

① 

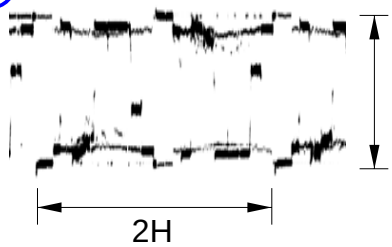
IC5701 ㊽ REC/PB

② 

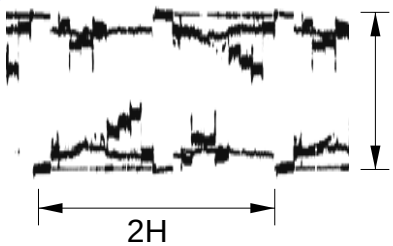
IC5701 ㊼ REC/PB

③ 

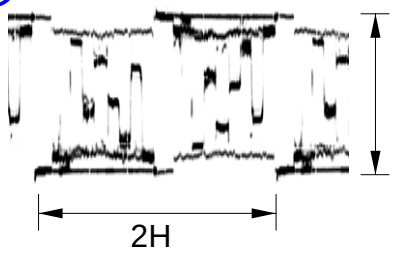
IC5701 ㊻ REC/PB

④ 

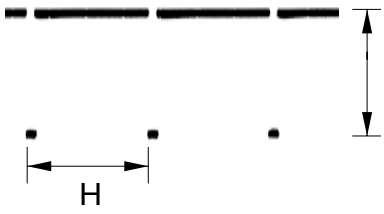
IC5701 ⑳ REC/PB

⑤ 

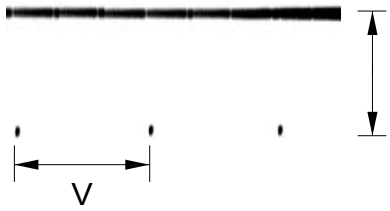
IC5701 ㉒ REC/PB

⑥ 

IC5701 ㉔ REC/PB

⑦ 

IC5702 ① REC/PB

⑧ 

IC5702 ㊽ REC/PB

⑨

IC5702 ㉖ REC/PB

COVER

4-3. PRINTED WIRING BOARDS

## 4-5. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

**CD-389 BOARD**

| | |
|---|---|
| C102 | D-4 |
| C103 | D-6 |
| C104 | C-1 |
| C105 | C-1 |
| C106 | D-3 |
| C107 | C-6 |
| C108 | C-1 |
| C109 | C-4 |
| C110 | C-6 |
| C111 | C-6 |
| C112 | C-4 |
| C113 | D-3 |
| C114 | C-7 |
| C115 | C-4 |
| C116 | C-4 |
| C117 | C-6 |
| C118 | C-6 |
| C119 | D-1 |
| C120 | D-1 |
| C121 | D-1 |
| C122 | D-2 |
| C123 | D-4 |
| C124 | D-7 |
| C125 | D-2 |
| C126 | D-4 |
| C127 | D-6 |
| C128 | D-4 |
| C129 | D-6 |
| C130 | C-1 |
| C131 | D-2 |
| * CN100 | A-4 |
| IC100 | D-4 |
| IC101 | D-6 |
| IC102 | D-1 |
| IC103 | D-4 |
| IC104 | D-6 |
| IC105 | D-1 |
| L100 | C-1 |
| L101 | D-3 |
| L102 | C-6 |
| L103 | D-4 |
| L104 | D-6 |
| L105 | D-2 |
| Q100 | C-3 |
| Q101 | C-6 |
| Q102 | D-1 |
| R100 | D-4 |
| R101 | D-6 |
| R102 | C-1 |
| R103 | D-1 |
| R104 | C-3 |
| R105 | C-6 |
| R106 | D-1 |
| R107 | C-4 |
| R108 | C-7 |
| R109 | D-1 |
| R110 | C-4 |
| R111 | C-6 |

Mounted parts location of the VC-288, DB-014 boards are not shown.
Pages 4-132 to 4-135 are not shown.

COVER

# 4-3. PRINTED WIRING BOARDS

(Note: C5944 and C5945 are mounted on the board with suffix number 12)

no mark : side A
* mark : side B

## SE-132 BOARD

| | | |
|---|---|---|
| | C4001 | A-2 |
| | C4002 | A-3 |
| * | C4003 | A-2 |
| * | C4004 | A-2 |
| * | C4005 | A-2 |
| * | C4006 | A-2 |
| * | C4007 | A-2 |
| * | C4008 | A-2 |
| | C4009 | B-2 |
| | C4010 | A-2 |
| | C4011 | B-2 |
| | C4012 | A-2 |
| | C4014 | A-1 |
| * | C4015 | A-1 |
| * | CN4005 | A-1 |
| * | IC4001 | A-2 |
| | L4001 | A-1 |
| | Q4001 | A-1 |
| | Q4002 | A-1 |
| * | R4001 | A-2 |
| * | R4002 | A-2 |
| * | R4003 | A-2 |
| * | R4004 | A-2 |
| * | R4005 | A-2 |
| * | R4006 | A-2 |
| * | R4007 | A-1 |
| * | R4009 | A-1 |
| | R4010 | A-1 |
| | R4011 | A-1 |
| | SE4001 | A-2 |
| | SE4002 | A-3 |

## MA-410 BOARD

| | | |
|---|---|---|
| * | C5901 | A-2 |
| * | C5905 | A-2 |
| * | C5906 | B-2 |
| * | C5907 | A-1 |
| * | C5908 | A-2 |
| * | C5909 | A-2 |
| * | C5910 | A-2 |
| * | C5911 | A-3 |
| * | C5912 | A-2 |
| * | C5913 | A-2 |
| * | C5914 | A-2 |
| * | C5915 | A-2 |
| * | C5917 | B-2 |
| * | C5918 | B-1 |
| * | C5920 | B-2 |
| * | C5921 | B-2 |
| * | C5922 | B-2 |
| * | C5923 | B-1 |
| * | C5924 | B-2 |
| * | C5925 | B-3 |
| * | C5926 | B-2 |
| * | C5927 | B-1 |
| * | C5928 | B-1 |
| * | C5929 | B-1 |
| * | C5930 | B-2 |
| * | C5931 | B-3 |
| | C5932 | B-3 |
| | C5933 | B-2 |
| | C5934 | B-3 |
| * | C5935 | B-2 |
| * | C5936 | B-2 |
| | C5937 | B-2 |
| * | C5938 | B-1 |
| * | C5939 | B-1 |
| * | C5940 | B-1 |
| * | C5941 | B-1 |
| * | C5944 | A-3 (Note) |
| * | C5945 | A-3 (Note) |
| * | CN5901 | A-3 |
| * | CN5902 | A-2 |
| * | CN5903 | B-1 |
| * | CN5904 | C-1 |
| * | CN5905 | B-4 |
| | CN5906 | B-3 |
| * | D5903 | B-1 |
| * | FB5901 | B-1 |
| * | FB5902 | A-1 |
| * | IC5901 | B-2 |
| | IC5902 | B-4 |
| | J5901 | A-1 |
| * | L5901 | B-2 |
| | Q5901 | B-3 |
| | Q5902 | B-3 |
| | Q5903 | B-3 |
| * | Q5904 | B-3 |
| * | Q5905 | B-3 |
| * | Q5906 | B-3 |
| * | R5901 | A-1 |
| * | R5902 | A-4 |
| * | R5903 | A-1 |
| * | R5904 | A-1 |
| * | R5905 | A-2 |
| * | R5906 | A-2 |
| * | R5907 | B-1 |
| * | R5908 | A-2 |
| * | R5909 | B-3 |
| * | R5910 | B-3 |
| * | R5911 | B-3 |
| * | R5912 | B-1 |
| | R5914 | B-3 |
| | R5915 | B-3 |
| * | R5916 | B-1 |
| * | R5917 | B-2 |
| * | R5918 | B-1 |
| * | R5919 | B-1 |
| * | R5920 | B-3 |
| * | R5921 | B-2 |
| * | R5922 | B-1 |
| * | R5923 | B-1 |
| * | R5924 | B-3 |
| * | R5925 | B-3 |
| | R5926 | B-4 |
| * | R5927 | B-1 |
| * | R5928 | B-2 |
| | R5929 | B-4 |
| | R5930 | B-4 |
| | R5931 | B-2 |
| | R5933 | B-2 |
| | R5934 | B-2 |
| | R5935 | B-2 |
| | R5936 | B-4 |
| | R5937 | B-4 |
| * | R5938 | B-1 |
| | R5939 | B-4 |
| | R5940 | B-4 |
| * | R5941 | B-1 |
| * | R5943 | B-1 |
| | R5944 | B-3 |
| | R5946 | B-3 |
| | R5947 | B-3 |
| | R5948 | B-3 |
| | R5949 | B-3 |
| * | R5951 | B-3 |
| * | R5952 | B-3 |
| * | R5953 | B-3 |
| * | VDR591 | A-1 |
| * | VDR592 | B-1 |

## CK-116 BOARD

| | | |
|---|---|---|
| | BT5201 | D-3 |
| * | C5201 | D-3 |
| * | C5202 | D-3 |
| | CN5201 | E-1 |
| * | CN5202 | E-1 |
| * | CN5203 | E-2 |
| * | CN5204 | A-6 |
| * | CN5205 | C-7 |
| * | CN5206 | D-1 |
| * | D5201 | C-6 |
| * | D5202 | F-3 |
| * | D5203 | F-3 |
| * | D5204 | E-5 |
| * | D5205 | C-6 |
| * | D5206 | C-6 |
| * | D5207 | D-2 |
| * | D5208 | A-5 |
| * | D5209 | C-6 |
| * | R5208 | C-6 |
| * | R5209 | E-2 |
| * | R5210 | C-6 |
| * | R5211 | C-5 |
| * | R5212 | C-5 |
| * | R5213 | C-5 |
| * | R5214 | C-5 |
| * | R5215 | C-6 |
| * | R5216 | E-2 |
| * | R5217 | D-5 |
| * | R5218 | B-4 |
| * | R5219 | A-6 |
| * | R5220 | E-2 |
| * | R5221 | D-5 |
| * | R5222 | B-5 |
| * | R5223 | A-6 |
| * | R5224 | E-2 |
| * | R5225 | E-6 |
| * | R5226 | E-4 |
| * | R5227 | B-6 |
| * | R5228 | A-5 |
| * | R5229 | E-2 |
| * | R5230 | E-6 |
| * | R5231 | E-4 |
| * | R5232 | C-6 |
| * | R5233 | B-4 |
| * | R5234 | F-2 |
| * | R5235 | D-5 |
| * | R5236 | B-4 |
| * | R5237 | C-7 |
| * | R5238 | C-5 |
| * | R5239 | C-6 |
| * | R5240 | C-7 |
| * | R5243 | D-2 |
| * | R5244 | E-2 |
| | S5116 | A-5 |
| | S5201 | E-7 |
| | S5202 | D-6 |
| | S5203 | C-5 |
| | S5204 | F-4 |
| | S5205 | F-4 |
| | S5206 | C-5 |
| | S5207 | B-4 |
| | S5208 | B-5 |
| | S5209 | B-6 |
| | S5210 | B-7 |
| | S5211 | C-6 |
| | S5212 | C-7 |
| | S5213 | C-6 |
| | S5214 | A-7 |
| | S5215 | A-6 |
| | S5217 | C-4 |
| | S5218 | F-1 |
| | S5219 | F-2 |
| | S5220 | C-7 |
| | S5221 | D-5 |

## JK-222 BOARD

| | | |
|---|---|---|
| * | CN401 | C-6 |
| * | CN402 | B-3 |
| * | D401 | C-3 |
| | D402 | B-3 |
| * | FB401 | C-3 |
| * | FB402 | C-3 |
| * | FB403 | A-3 |
| * | FB404 | A-2 |
| * | FB405 | C-3 |
| * | FB406 | A-1 |
| * | FB407 | A-1 |
| * | J401 | B-6 |
| * | J402 | C-3 |
| * | J403 | A-2 |
| * | J404 | A-1 |
| * | LF401 | A-3 |
| * | LF402 | A-3 |
| * | R401 | B-6 |
| * | R402 | B-5 |
| * | R403 | B-6 |
| * | R404 | B-3 |
| * | R406 | A-2 |
| * | R407 | B-3 |
| * | R408 | B-1 |
| * | R409 | A-2 |
| * | R410 | C-6 |
| * | R411 | A-2 |
| * | VDR401 | B-5 |
| * | VDR402 | B-6 |
| * | VDR403 | B-6 |
| * | VDR404 | A-2 |
| * | VDR405 | C-3 |
| * | VDR406 | A-2 |
| * | VDR407 | A-1 |
| * | VDR408 | A-1 |
| * | VDR409 | A-1 |

## PD-168 BOARD

| | | |
|---|---|---|
| | C5701 | A-4 |
| | C5702 | A-4 |
| | C5703 | C-3 |
| | C5704 | A-3 |
| | C5705 | A-3 |
| | C5706 | A-3 |
| | C5707 | B-3 |
| | C5708 | B-3 |
| | C5709 | B-3 |
| | C5710 | B-4 |
| | C5711 | B-4 |
| | C5712 | B-4 |
| | C5713 | B-3 |
| | C5714 | B-3 |
| | C5715 | B-4 |
| | C5716 | C-3 |
| | C5717 | B-2 |
| | C5718 | C-2 |
| | C5719 | B-4 |
| | C5720 | B-3 |
| | C5721 | B-3 |
| | C5722 | C-3 |
| | C5723 | C-1 |
| | C5724 | C-1 |
| | C5726 | B-2 |
| | C5727 | B-2 |
| | C5801 | B-4 |
| | C5802 | C-2 |
| | C5803 | C-2 |
| | C5805 | C-3 |
| | C5807 | C-1 |
| | C5808 | C-3 |
| | CN5701 | B-1 |
| | CN5802 | A-2 |
| | CN5803 | C-1 |
| | CN5804 | C-4 |
| | CN5805 | C-2 |
| | CN5806 | A-4 |
| | D5701 | C-3 |
| | D5702 | C-2 |
| | IC5701 | B-4 |
| | IC5702 | B-2 |
| | IC5801 | C-4 |
| | L5701 | A-4 |
| | L5702 | B-3 |
| | L5703 | B-4 |
| | L5704 | C-3 |
| | L5705 | B-2 |
| | L5801 | C-2 |
| | L5802 | C-3 |
| | Q5701 | B-3 |
| | Q5702 | A-3 |
| | Q5801 | C-1 |
| | Q5802 | C-3 |
| | R5701 | B-4 |
| | R5702 | A-4 |
| | R5703 | A-4 |
| | R5705 | C-3 |
| | R5706 | B-3 |
| | R5707 | B-4 |
| | R5708 | B-3 |
| | R5709 | B-3 |
| | R5710 | B-3 |
| | R5711 | B-3 |
| | R5712 | B-3 |
| | R5713 | B-3 |
| | R5714 | B-3 |
| | R5717 | B-2 |
| | R5719 | B-2 |
| | R5721 | C-3 |
| | R5722 | B-3 |
| | R5727 | B-2 |
| | R5732 | B-2 |
| | R5736 | B-2 |
| | R5737 | C-2 |
| | R5801 | B-4 |
| | R5802 | B-4 |
| | R5803 | C-3 |
| | R5804 | C-3 |
| | R5805 | A-4 |

COVER

## 4-3. PRINTED WIRING BOARDS

no mark : side A
* mark : side B

### FP-504 FLEXIBLE BOARD

| | |
|---|---|
| C601 | E-5 |
| D601 | B-1 |
| D602 | E-6 |
| D603 | E-6 |
| D605 | B-1 |
| D606 | E-6 |
| D607 | D-2 |
| D608 | E-3 |
| D609 | B-4 |
| D610 | B-3 |
| F601 | C-4 |
| IC601 | D-6 |
| PH601 | E-2 |
| PH602 | E-3 |
| Q601 | C-1 |
| R601 | C-2 |
| R602 | B-1 |
| R603 | C-4 |
| R604 | B-1 |
| R605 | E-5 |
| R606 | C-1 |
| R607 | C-1 |
| S601 | B-2 |
| S602 | B-3 |
| S603 | B-1 |
| S604 | B-4 |

COVER

# SECTION 5
# REPAIR PARTS LIST

## 5-1. EXPLODED VIEWS

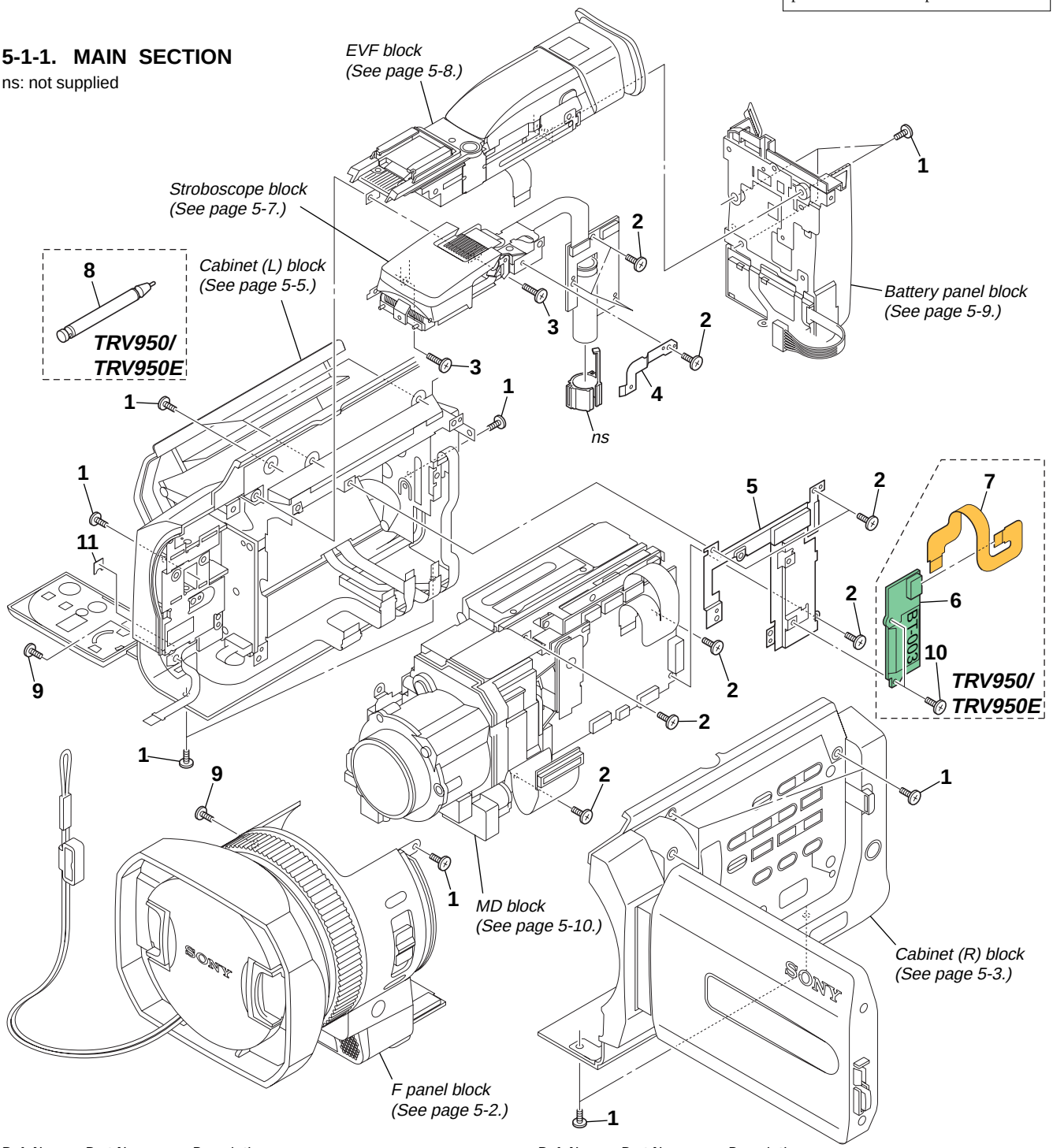
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

### 5-1-1. MAIN SECTION

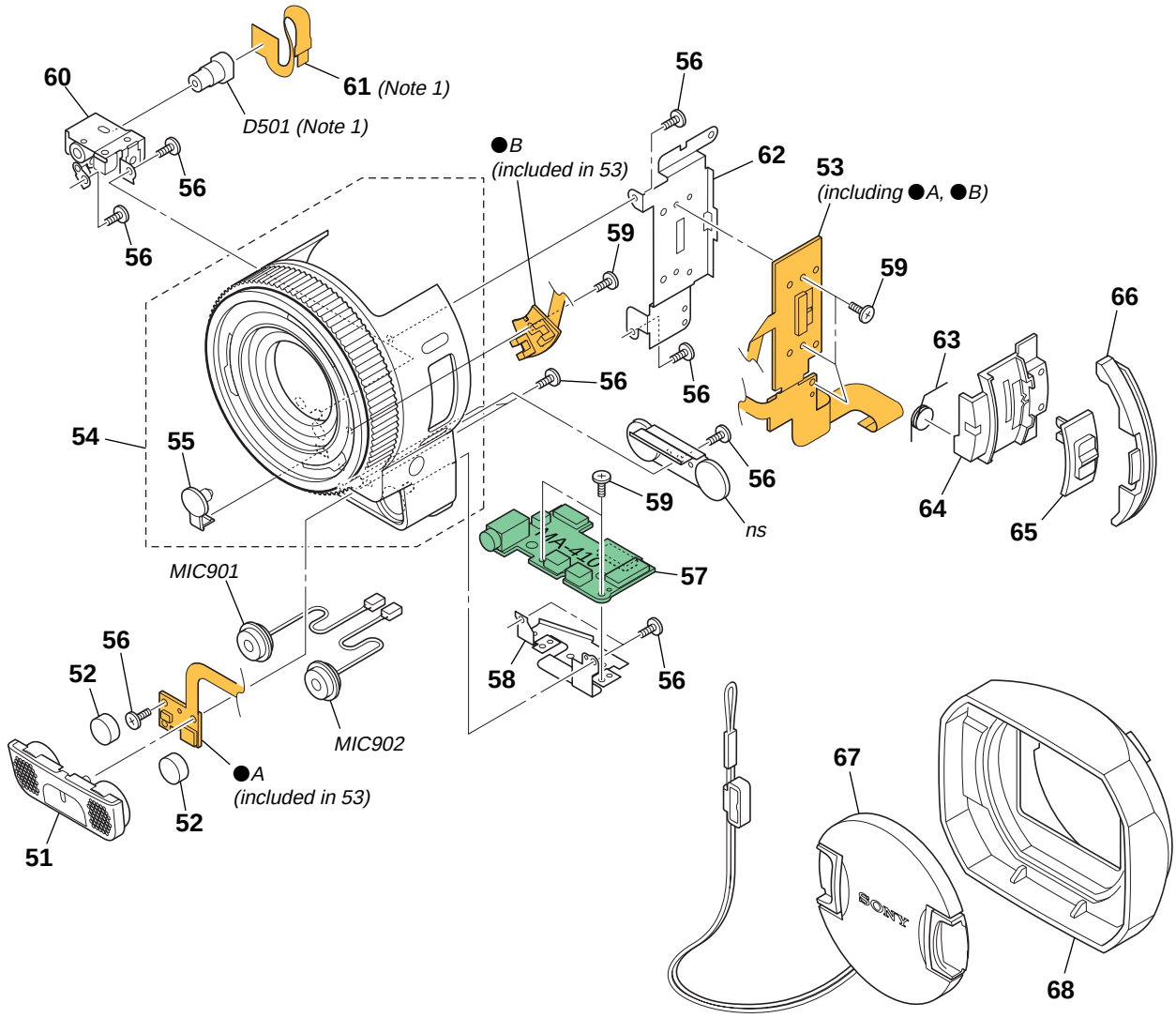
ns: not supplied




| Ref. No. | Part No. | Description |
|---|---|---|
| 1 | 3-989-735-01 | SCREW (M1.7), LOCK ACE, P2 |
| 2 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 3 | 3-713-791-31 | SCREW (M1.7X6), TAPPING, P2 |
| 4 | 3-076-240-01 | PLATE (B), MF KNOB RETAINER |
| 5 | X-3952-686-1 | FRAME ASSY, ST |
| 6 | A-7067-302-A | BT-003 BOARD, COMPLETE (TRV950/TRV950E) |
| 7 | 1-685-290-11 | FP-491 FLEXIBLE BOARD (TRV950/TRV950E) |
| 8 | 3-073-941-01 | STYLUS (TRV950/TRV950E) |
| 9 | 3-055-573-21 | SCREW (M1.7), LOCK ACE, P2 |
| 10 | 3-389-523-28 | SCREW (LOCK ACE) |
| 11 | 3-076-834-01 | SHEET, AF BLIND |

### 5-1-2. F PANEL BLOCK

ns: not supplied




| | |
|---|---|
| (Note 1) | Be sure to read “SERVICE NOTE” on page 1-3 when replacing the laser unit (D501) and the FP-500 flexible board. |

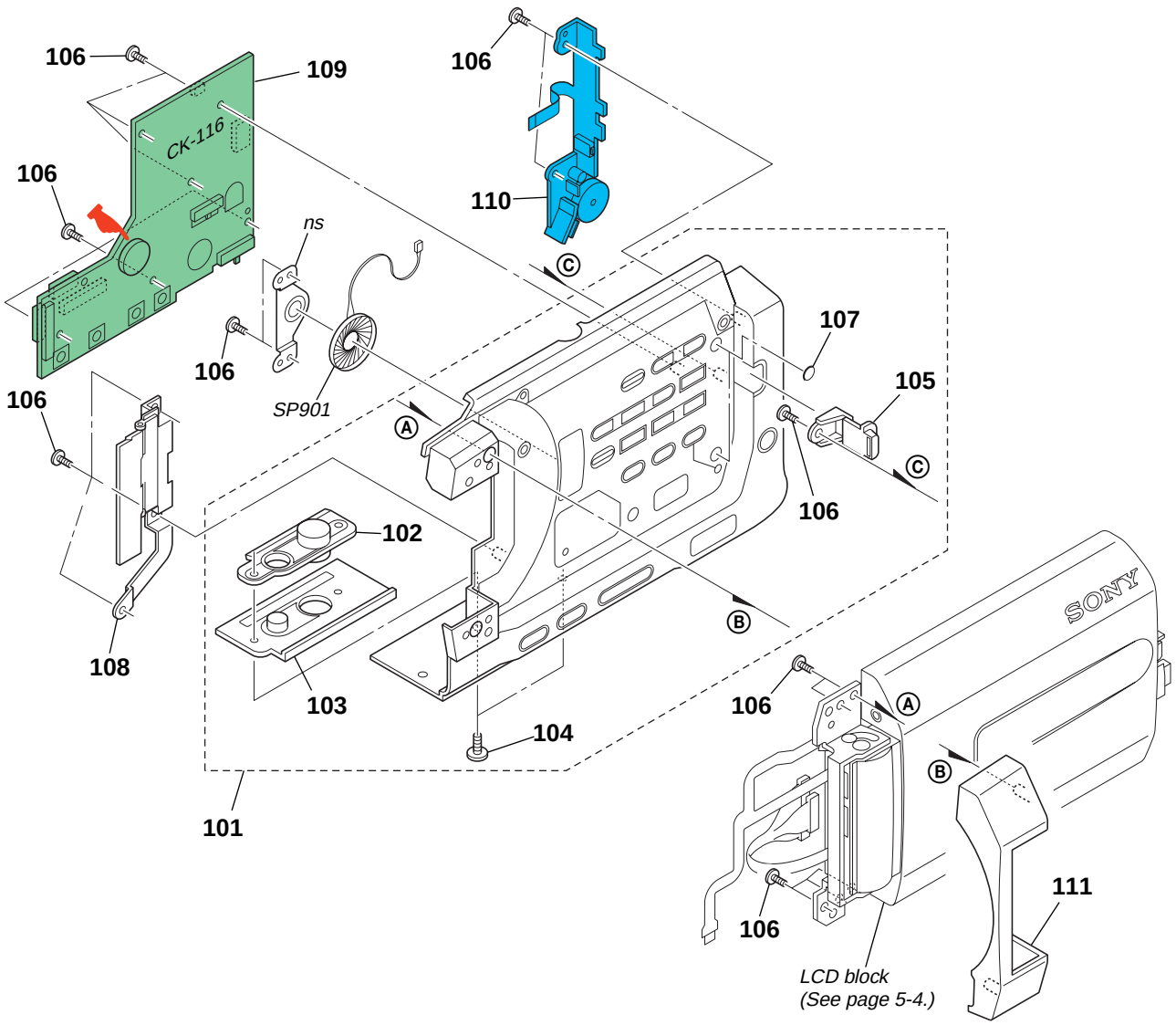
| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

| Ref. No. | Part No. | Description |
|---|---|---|
| 51 | X-3952-617-1 | GRILLE ASSY, MICROPHONE |
| 52 | 3-076-349-01 | SHEET, GRILLE |
| 53 | A-7078-341-A | FP-504 FLEXIBLE BOARD, COMPLETE |
| 54 | X-3952-621-1 | PANEL ASSY, FRONT |
| 55 | 3-076-276-01 | COVER, MICROPHONE JACK |
| 56 | 3-713-791-01 | SCREW (M1.7X4), TAPPING, P2 |
| 57 | A-7078-336-A | MA-410 BOARD, COMPLETE |
| 58 | 3-076-348-01 | BRACKET, MA |
| 59 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 60 | X-3952-608-1 | BRACKET ASSY, AF LASER |
| 61 | 1-685-298-11 | FP-500 FLEXIBLE BOARD (Note 1) |

| Ref. No. | Part No. | Description |
|---|---|---|
| 62 | 3-076-354-01 | PLATE (A), MF KNOB RETAINER |
| 63 | 3-076-353-01 | SPRING, MF KNOB RETURN |
| 64 | 3-076-351-01 | RETAINER, MF KNOB |
| 65 | 3-076-350-01 | KNOB, MF |
| 66 | 3-076-352-01 | PLATE, ORNAMENTAL |
| 67 | X-3952-595-1 | CAP ASSY, LENS |
| 68 | X-3952-594-1 | HOOD ASSY |
| ⚠D501 | 1-804-531-11 | LASER UNIT (Note 1) |
| MIC901 | 1-542-312-11 | MICROPHONE (L-side) |
| MIC902 | 1-542-312-11 | MICROPHONE (R-side) |

## 5-1-3. CABINET (R) BLOCK

ns: not supplied



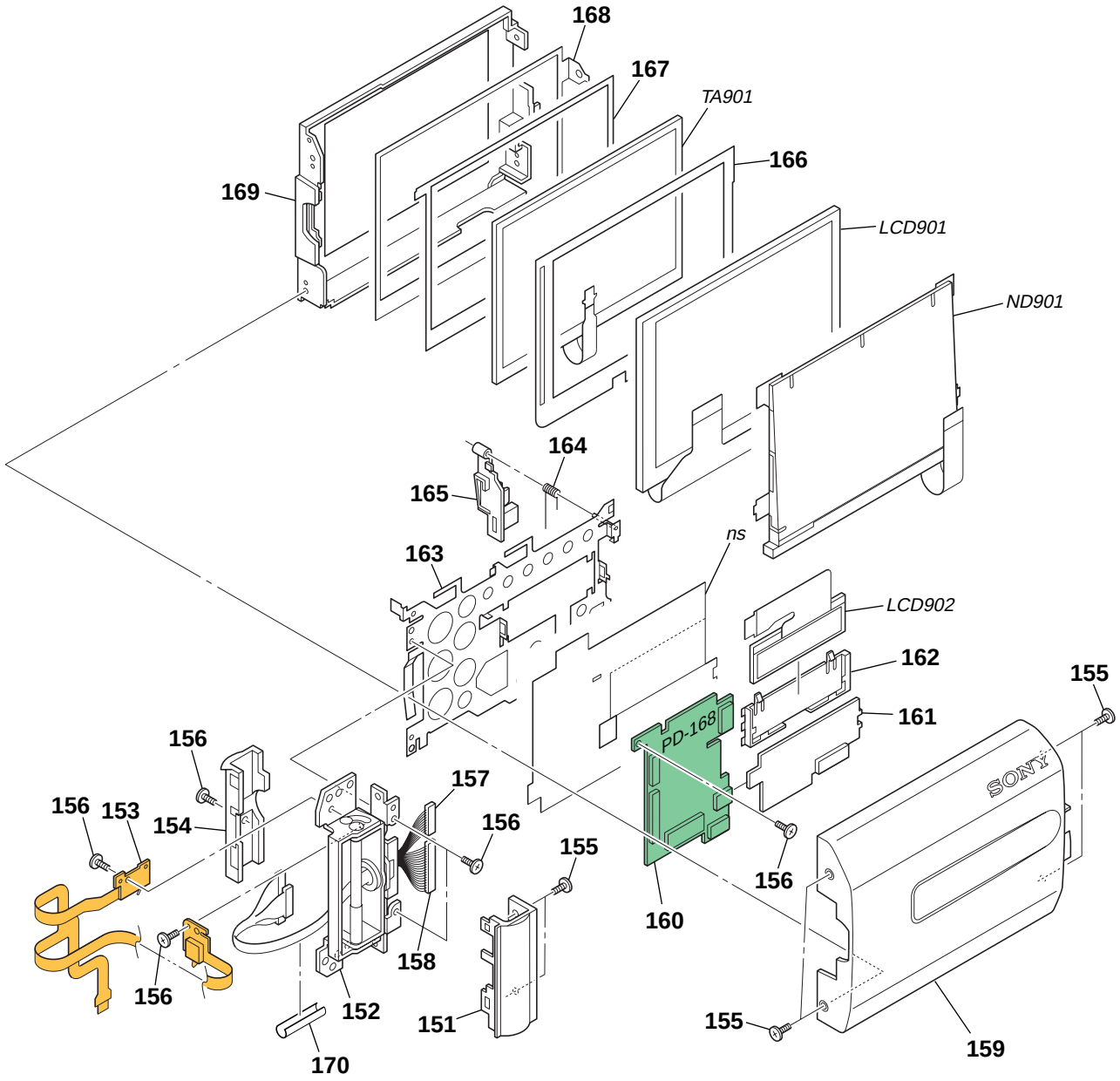

☛ : BT5201 (BATTERY, LITHIUM SECONDARY)
Board on the mount position. (See page 4-105.)

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or eqivalent type.

| Ref. No. | Part No. | Description |
|---|---|---|
| 101 | X-3952-620-1 | CABINET (R) ASSY (TRV940/TRV950) |
| 101 | X-3952-643-1 | CABINET (R) ASSY (TRV940E/TRV950E) |
| 102 | 3-051-840-01 | SCREW, TRIPOD |
| 103 | 3-076-305-01 | BASE, TRIPOD TABLE |
| 104 | 3-958-217-01 | SCREW (M2) |
| 105 | 3-076-299-01 | CLAW, PANEL LOCK |
| 106 | 3-989-735-51 | SCREW (M1.7), LOCK ACE, P2 |
| 107 | 3-062-194-01 | SPACER, LOCK |
| 108 | X-3952-609-1 | LID ASSY, HINGE BLIND |
| 109 | A-7078-338-A | CK-116 BOARD, COMPLETE |
| 110 | 1-477-338-11 | SWITCH BLOCK, CONTROL (KP1870) |
| 111 | 3-076-344-01 | CABINET (HINGE) |
| SP901 | 1-529-857-21 | SPEAKER (1.6 cm) |

## 5-1-4. LCD BLOCK

ns: not supplied

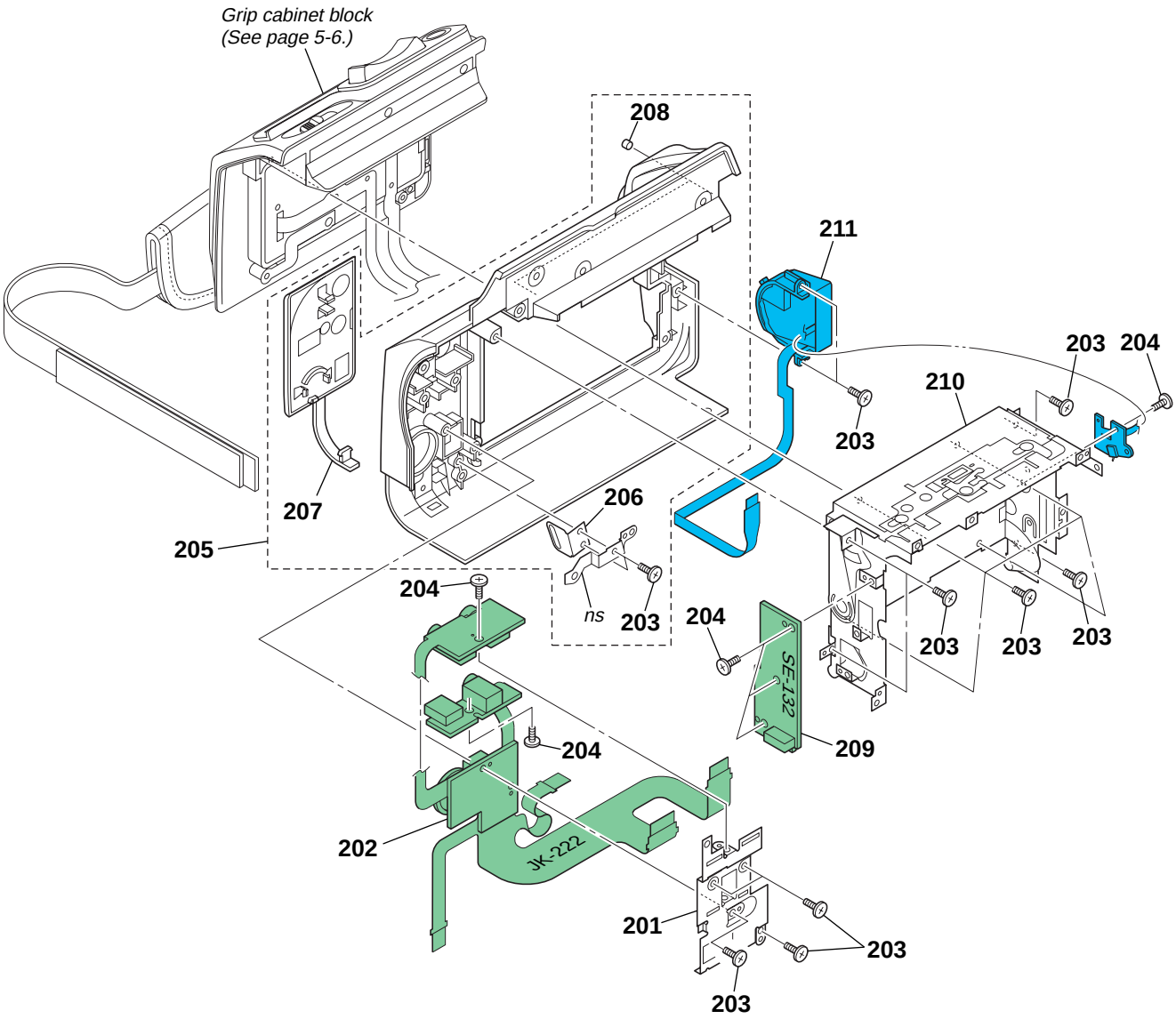



| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
|---|---|

| Ref. No. | Part No. | Description |
|---|---|---|
| 151 | 3-076-448-01 | COVER (FRONT), HINGE |
| 152 | X-3952-604-1 | HINGE ASSY |
| 153 | A-7078-342-A | FP-495 FLEXIBLE BOARD, COMPLETE |
| 154 | 3-076-447-01 | COVER (REAR), HINGE |
| 155 | 3-989-735-51 | SCREW (M1.7), LOCK ACE, P2 |
| 156 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 157 | 1-961-814-11 | HARNESS (PC-087) |
| 158 | 1-961-815-11 | HARNESS (PC-088) |
| 159 | X-3952-626-1 | P CABINET (C) ASSY (TRV950) |
| 159 | X-3952-642-1 | P CABINET (C) ASSY (TRV950E) |
| 159 | X-3952-646-1 | P CABINET (C) ASSY (TRV940E) |
| 159 | X-3952-661-1 | P CABINET (C) ASSY (TRV940) |
| 160 | A-7078-337-A | PD-168 BOARD, COMPLETE |
| ⚠161 | 1-477-187-11 | TRANSFORMER UNIT, INVERTER |
| 162 | 3-055-289-01 | HOLDER, LCD |
| 163 | X-3952-612-1 | FRAME ASSY, P |
| 164 | 3-076-453-01 | SPRING (P), TORSION COIL |
| 165 | 3-076-449-01 | BUTTON, OPEN |
| 166 | 3-076-451-01 | CUSHION (L) |
| 167 | 3-076-450-01 | CUSHION (C) |
| 168 | 3-076-452-01 | PLATE (P), GROUND |
| 169 | 3-076-446-01 | CABINET (M), P |
| 170 | 3-076-631-01 | TAPE (H) |
| LCD901 | 1-804-599-21 | INDICATOR MODULE LIQUID CRYSTAL (SERVICE) |
| LCD902 | A-7096-726-A | INDICATION LCD BLOCK ASSY (CHARACTER DISPLAY) (including FP-182 FLEXIBLE BOARD) |
| ⚠ND901 | 1-518-797-11 | TUBE, FLUORESCENT,COLD CATHODE |
| TA901 | 1-477-189-11 | PANEL, TOUCH |

## 5-1-5. CABINET (L) BLOCK

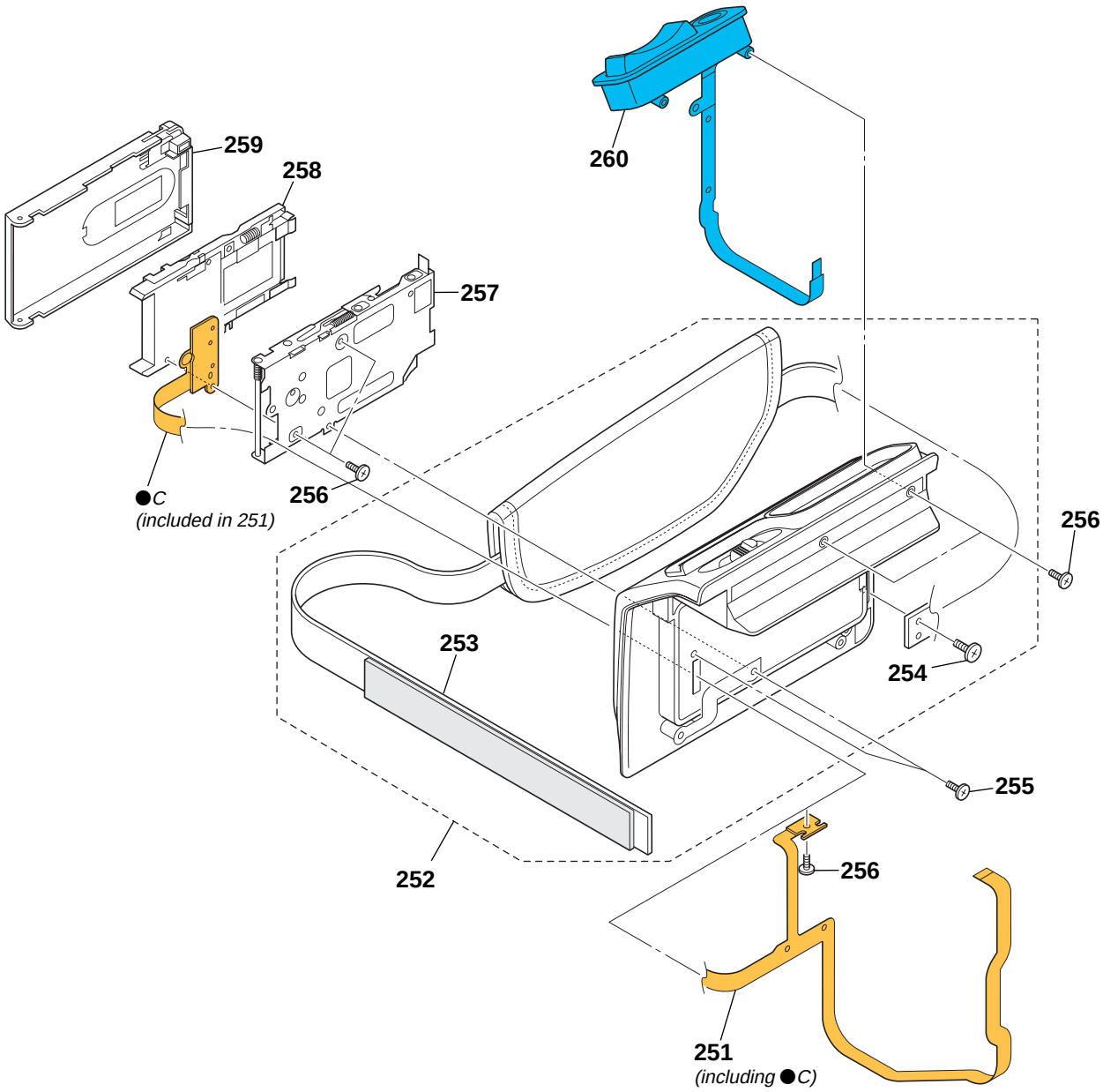
ns: not supplied




| Ref. No. | Part No. | Description |
|---|---|---|
| 201 | 3-076-343-01 | BRACKET, JK |
| 202 | A-7078-332-A | JK-222 BOARD, COMPLETE |
| 203 | 3-713-791-01 | SCREW (M1.7X4), TAPPING, P2 |
| 204 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 205 | X-3952-622-1 | CABINET (L) ASSY (TRV940/TRV950) |
| 205 | X-3952-641-1 | CABINET (L) ASSY (TRV940E/TRV950E) |
| 206 | 3-076-309-01 | BRACKET (FRONT), GRIP BELT |

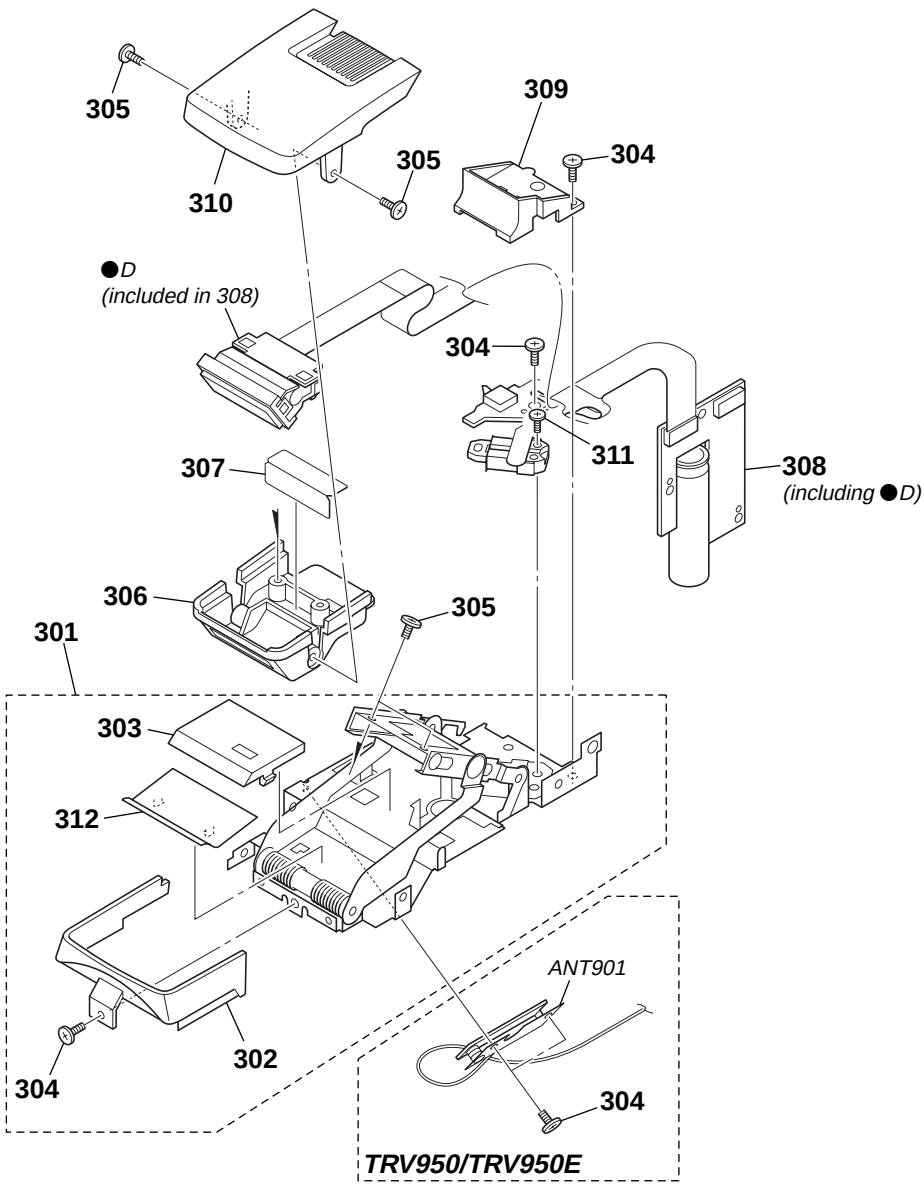
| Ref. No. | Part No. | Description |
|---|---|---|
| 207 | X-3952-618-1 | COVER ASSY, TERMINAL |
| 208 | 3-052-521-01 | CUSHION (2), PANEL |
| 209 | A-7078-339-A | SE-132 BOARD, COMPLETE |
| 210 | X-3952-593-1 | CS FRAME ASSY |
| 211 | 1-477-337-22 | SWITCH BLOCK, CONTROL (PS1870) (TRV950/TRV950E) |
| 211 | 1-477-337-32 | SWITCH BLOCK, CONTROL (PS1870) (TRV940/TRV940E) |

### 5-1-6. GRIP CABINET BLOCK




| Ref. No. | Part No. | Description |
|---|---|---|
| 251 | 1-685-299-11 | FP-503 FLEXIBLE BOARD (TRV940/TRV940E) |
| 251 | 1-685-299-21 | FP-503 FLEXIBLE BOARD (TRV950/TRV950E) |
| 252 | X-3952-623-1 | CABINET ASSY, GRIP (TRV950/TRV950E) |
| 252 | X-3952-660-1 | CABINET ASSY, GRIP (TRV940/TRV940E) |
| 253 | 3-076-322-01 | BELT, GRIP (TRV950/TRV950E) |
| 253 | 3-076-322-11 | BELT, GRIP (TRV940/TRV940E) |
| 254 | 3-679-362-11 | SCREW (M2X4) |
| 255 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 256 | 3-713-791-01 | SCREW (M1.7X4), TAPPING, P2 |
| 257 | X-3952-598-1 | CHASSIS ASSY, MS |
| 258 | 1-785-593-31 | CONNECTOR, MEMORY STICK |
| 259 | X-3952-624-1 | CABINET ASSY, MS |
| 260 | 1-477-339-21 | SWITCH BLOCK, CONTROL (CF1870) |

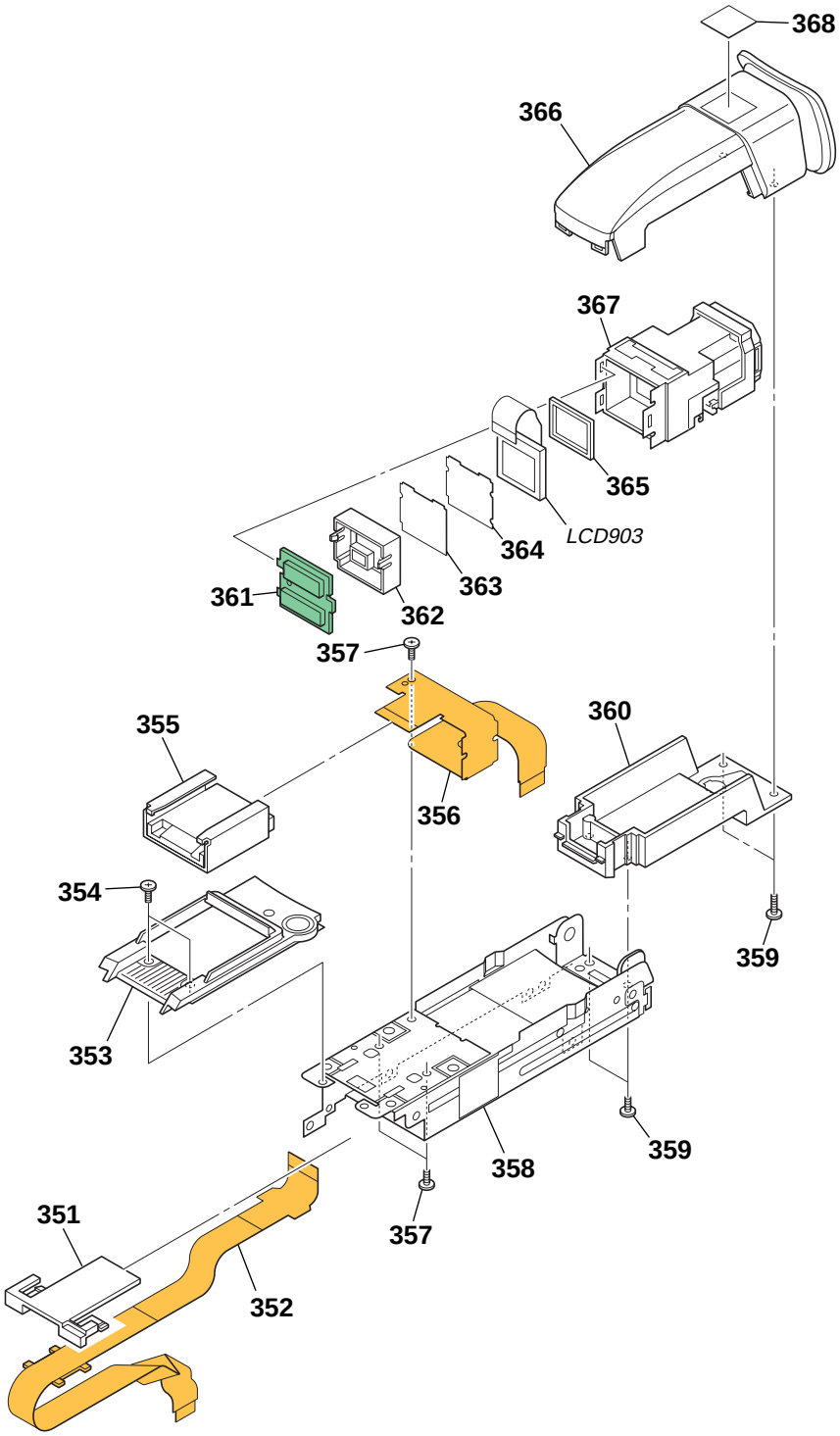
### 5-1-7. STROBOSCOPE BLOCK




| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
|---|---|

| Ref. No. | Part No. | Description |
|---|---|---|
| 301 | X-3952-601-1 | BASE ASSY, ST |
| 302 | 3-076-313-01 | ST CABINET (FRONT) |
| 303 | 3-076-340-01 | COVER (LOWER), ST |
| 304 | 3-989-735-81 | SCREW (M1.7), LOCK ACE, P2 |
| 305 | 3-713-791-01 | SCREW (M1.7X4), TAPPING, P2 |
| 306 | X-3952-663-1 | CABINET (LOWER) ASSY, ST |
| 307 | 3-076-854-01 | SHEET, INSULATING, ST |
| ⚠308 | 1-477-398-11 | FLASH UNIT |
| 309 | 3-076-342-01 | COVER (UPPER), ST |
| 310 | X-3952-670-1 | CABINET (UPPER) ASSY, ST |
| 311 | 3-389-523-28 | SCREW (LOCK ACE) |
| 312 | 3-076-341-01 | COVER (FRONT), ST |
| ANT901 | 1-754-210-21 | ANTENNA (2.4Ghz) (TRV950/TRV950E) |

## 5-1-8. EVF BLOCK

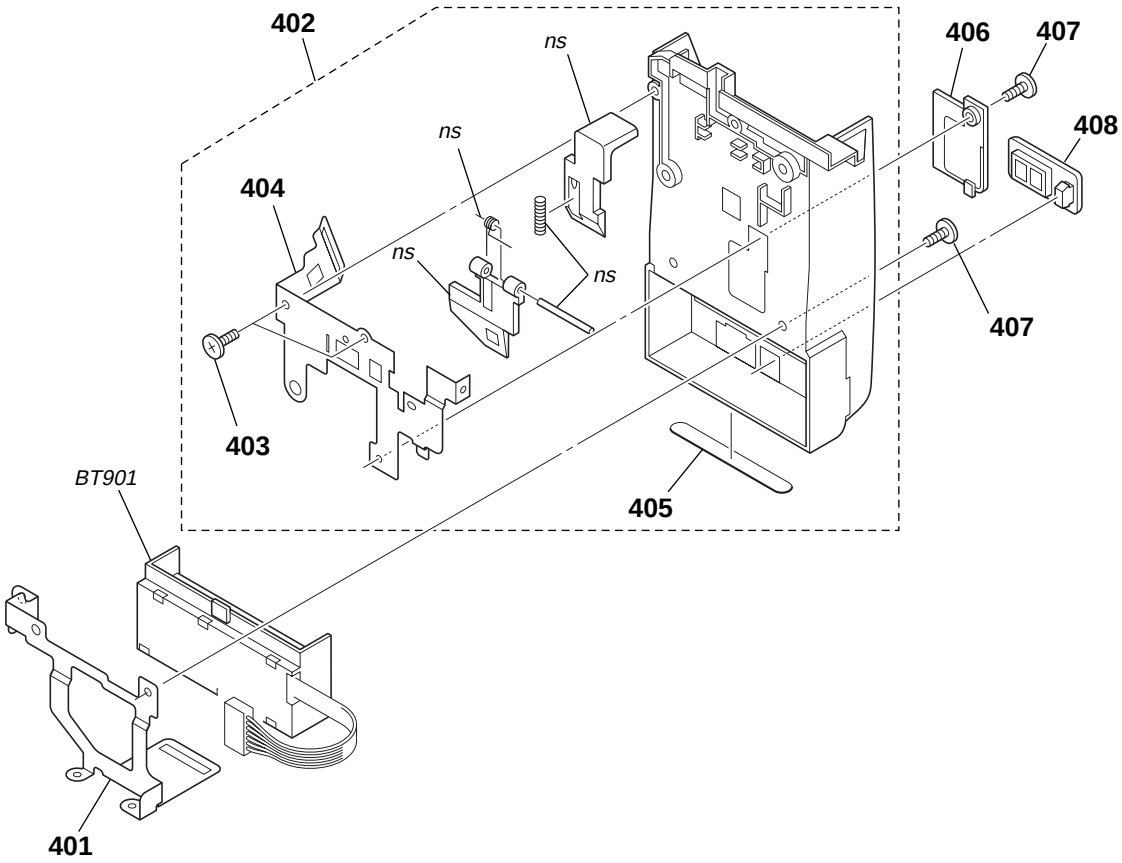



| Ref. No. | Part No. | Description |
|---|---|---|
| 351 | 3-076-345-01 | HOLDER, VF FLEXIBLE |
| 352 | 1-685-301-11 | FP-547 FLEXIBLE BOARD |
| 353 | X-3952-625-1 | CABINET ASSY, TOP (TRV950/TRV950E) |
| 353 | X-3952-645-1 | CABINET ASSY, TOP (TRV940/TRV940E) |
| 354 | 3-989-735-81 | SCREW (M1.7), LOCK ACE, P2 |
| 355 | 1-815-124-11 | CONNECTOR, EXTERNAL (HOT SHOE) |
| 356 | A-7078-344-A | FP-497 FLEXIBLE BOARD, COMPLETE |
| 357 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 358 | X-3952-600-1 | BASE ASSY, EVF |
| 359 | 3-713-791-31 | SCREW (M1.7X6), TAPPING, P2 |

| Ref. No. | Part No. | Description |
|---|---|---|
| 360 | X-3952-614-1 | CABINET (LOWER) ASSY, VF |
| 361 | A-7078-333-A | LB-080 BOARD, COMPLETE |
| 362 | 3-072-214-01 | GUIDE (20), LAMP |
| 363 | 3-072-211-01 | ILLUMINATOR |
| 364 | 3-072-210-01 | SHEET, PRISM |
| 365 | 3-059-734-01 | CUSHION (1), LCD |
| 366 | X-3952-613-1 | CABINET (UPPER) ASSY, VF |
| 367 | X-3952-616-1 | LENS ASSY, VF |
| 368 | 3-074-434-01 | COVER VF LABEL (PR) |
| LCD903 | 8-753-028-54 | LCX033AN-1 (SERVICE) |

### 5-1-9. BATTERY PANEL BLOCK

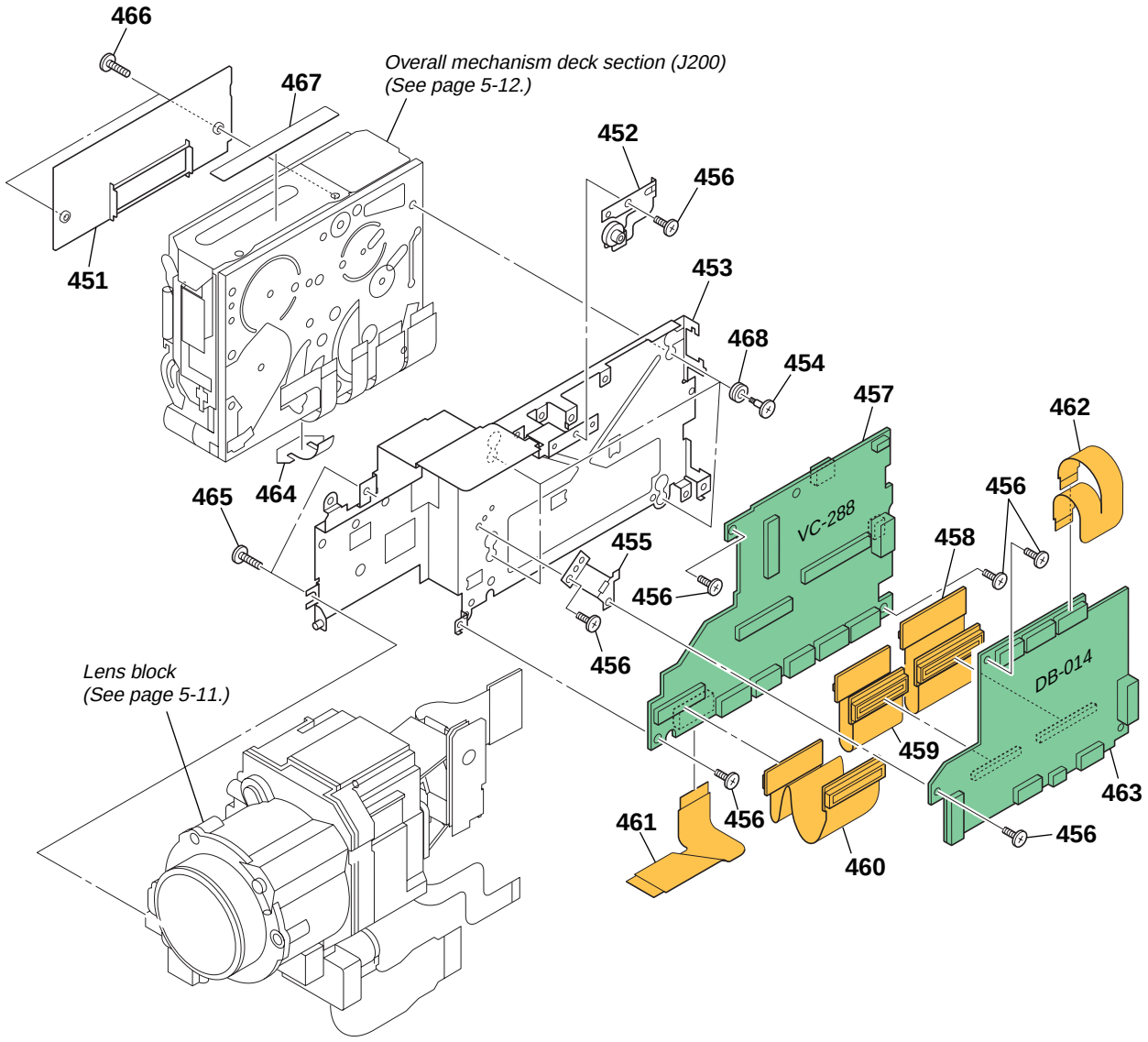
ns: not supplied




| Ref. No. | Part No. | Description |
|---|---|---|
| 401 | 3-076-245-01 | BRACKET (LOWER), STRAP |
| 402 | X-3952-603-1 | PANEL ASSY, BATTERY |
| 403 | 3-713-791-51 | SCREW (M1.7X3.5), TAPPING, P2 |
| 404 | 3-076-335-01 | BRACKET (UPPER), STRAP |
| 405 | 3-076-337-01 | FOOT, RUBBER |
| 406 | 3-076-239-01 | LID, CPC |
| 407 | 3-989-735-81 | SCREW (M1.7), LOCK ACE, P2 |
| 408 | 3-065-290-11 | LID, JACK |
| BT901 | 1-694-772-11 | TERMINAL BOARD, BATTERY |

### 5-1-10. MD BLOCK

ns: not supplied

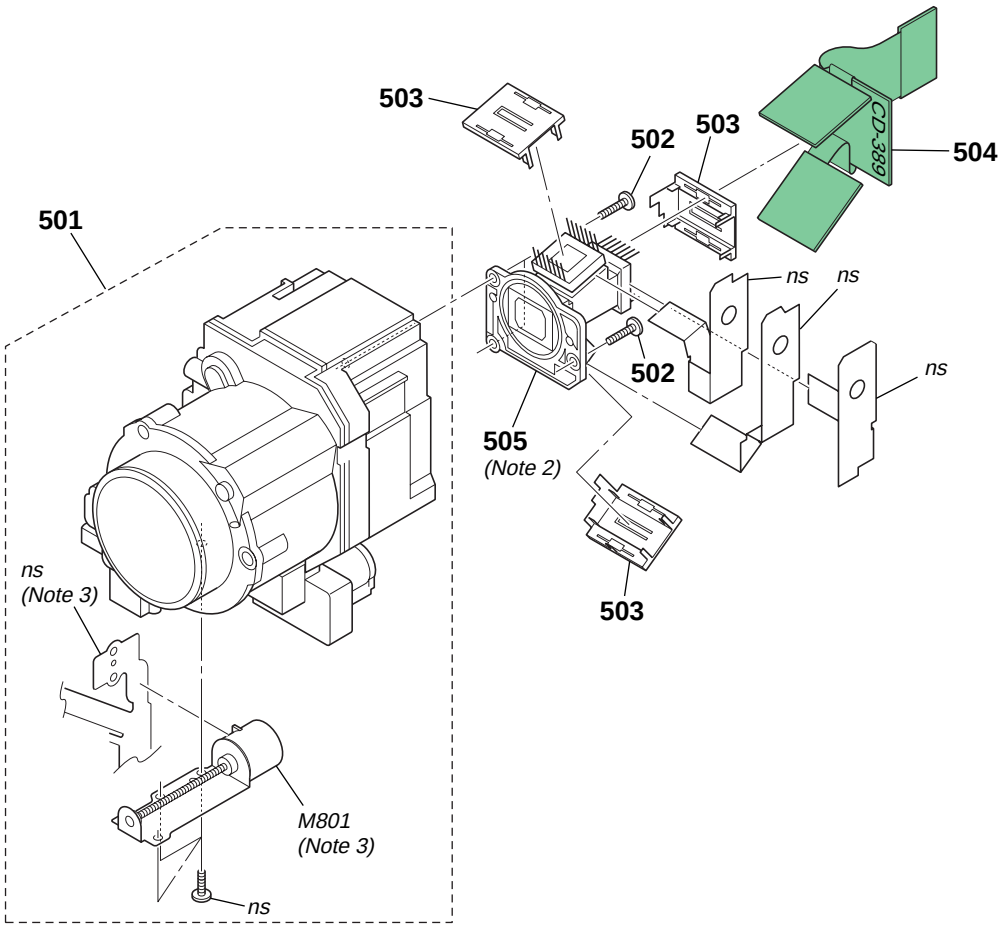



| Ref. No. | Part No. | Description |
|---|---|---|
| 451 | 3-059-722-01 | COVER, CASSETTE COMPARTMENT |
| 452 | X-3952-662-1 | BRACKET ASSY, HEAT SINK |
| 453 | X-3952-599-1 | FRAME ASSY, MD |
| 454 | 3-059-718-01 | SCREW (M1.4X1.5) |
| 455 | 3-076-338-01 | BRACKET, DB |
| 456 | 4-974-725-01 | SCREW (M1.7X2.5), P |
| 457 | A-7078-347-A | VC-288 BOARD, COMPLETE (SERVICE) (TRV950) |
| 457 | A-7078-362-A | VC-288 BOARD, COMPLETE (SERVICE) (TRV950E) |
| 457 | A-7078-364-A | VC-288 BOARD, COMPLETE (SERVICE) (TRV940E) |
| 457 | A-7078-366-A | VC-288 BOARD, COMPLETE (SERVICE) (TRV940) |
| 458 | A-7078-345-A | FP-498 FLEXIBLE BOARD, COMPLETE |

| Ref. No. | Part No. | Description |
|---|---|---|
| 459 | A-7078-346-A | FP-499 FLEXIBLE BOARD, COMPLETE |
| 460 | A-7078-343-A | FP-496 FLEXIBLE BOARD, COMPLETE |
| 461 | 1-685-292-11 | FP-494 FLEXIBLE BOARD |
| 462 | 1-685-291-11 | FP-493 FLEXIBLE BOARD |
| 463 | A-7078-348-A | DB-014 BOARD, COMPLETE (SERVICE) (TRV940/TRV950) |
| 463 | A-7078-363-A | DB-014 BOARD, COMPLETE (SERVICE) (TRV940E/TRV950E) |
| 464 | 3-070-940-01 | TAPE (3), DF |
| 465 | 3-948-339-01 | SCREW, TAPPING |
| 466 | 3-989-735-01 | SCREW (M1.7), LOCK ACE, P2 |
| 467 | 3-059-725-01 | LABEL, LS |
| 468 | 3-059-809-01 | DAMPER, MD |

### 5-1-11. LENS BLOCK

ns: not supplied

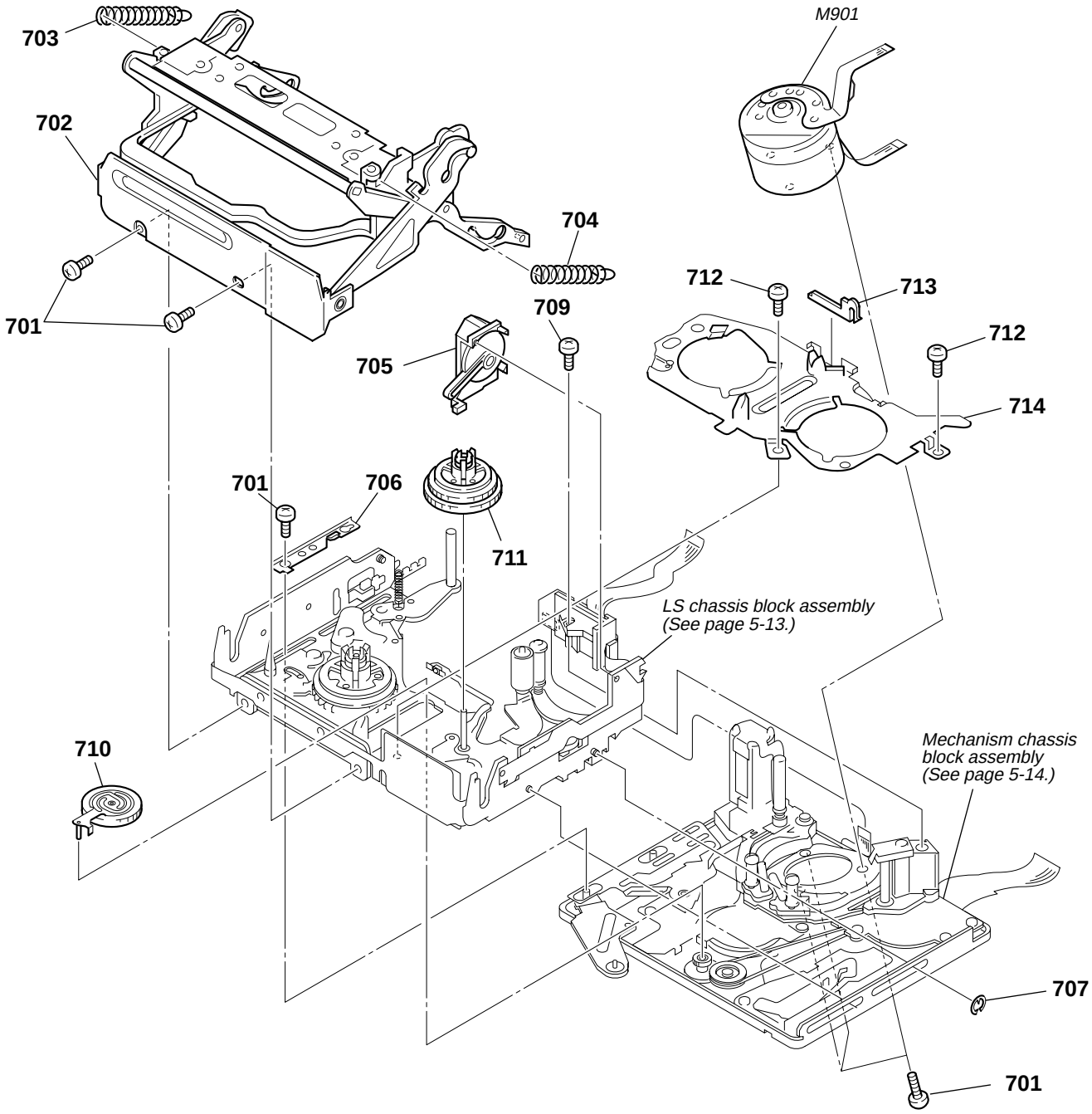



(Note 2) Be sure to read "Precuations for Replacement of CCD Imager" on page 4-12 when changing the prism block.

(Note 3) Flexible board of video lens is not supplied. Please be careful not to break the flexible board when you change the motor unit.

| Ref. No. | Part No. | Description |
|---|---|---|
| 501 | 1-758-757-11 | LENS, VIDEO (B144A) |
| 502 | 3-713-791-61 | SCREW (M1.7X7), TAPPING, P2 |
| 503 | 3-076-331-01 | COVER (A), CCD |
| 504 | A-7078-335-A | CD-389 BOARD, COMPLETE |
| 505 | A-7012-866-A | PRISM BLOCK (ZGDSY2) (SERVICE) (including CCD IMAGER (IC100, 101, 105)) (Note 2) |
| M801 | 3-709-679-01 | MOTOR, ZOOM (Note 3) |

### 5-1-12. OVERALL MECHANISM DECK SECTION (J200)

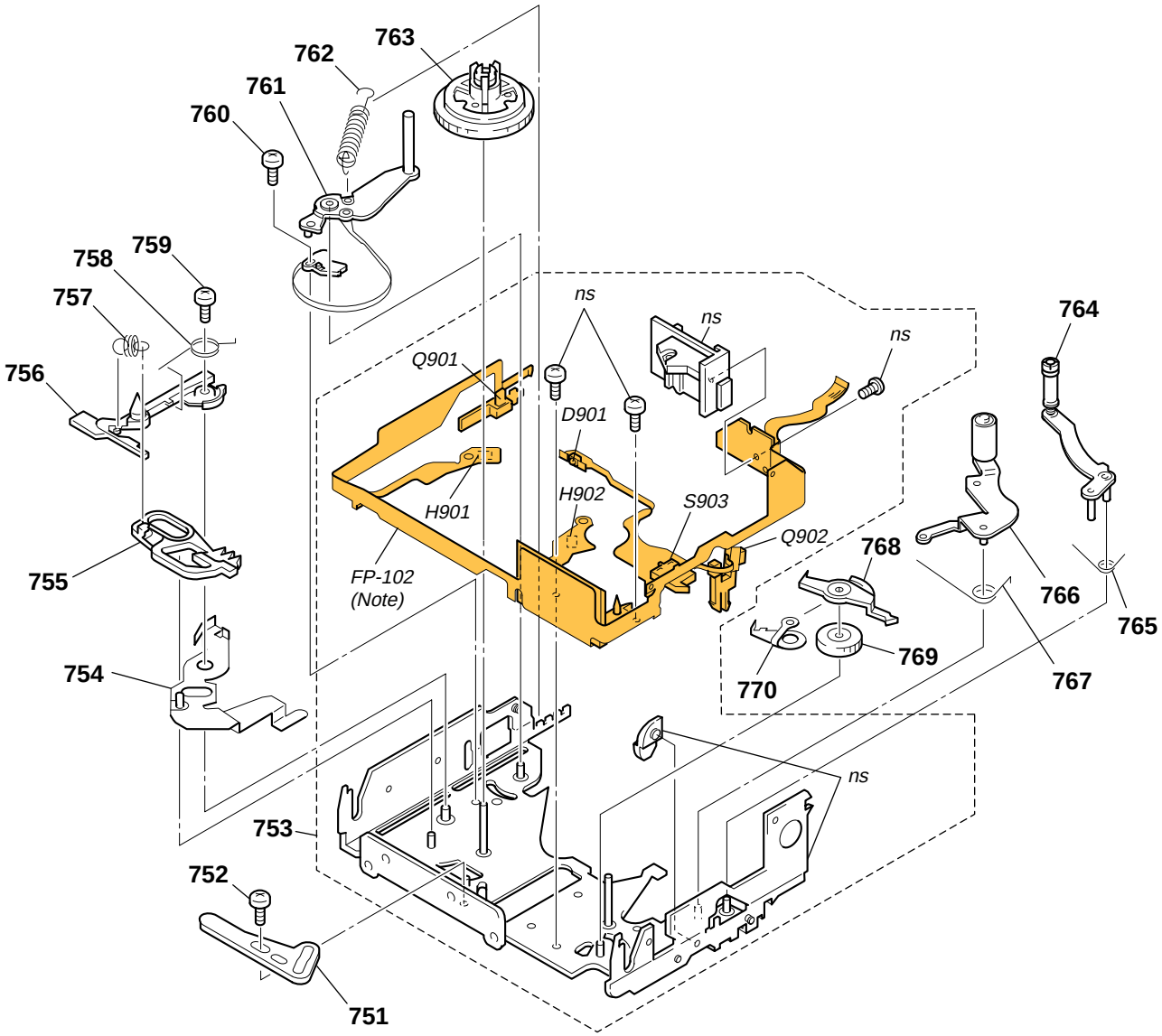



| Ref. No. | Part No. | Descriptions |
|---|---|---|
| 701 | 3-703-816-14 | SCREW (M1.4) |
| 702 | X-3952-017-3 | CASSETTE COMPARTMENT ASSY |
| 703 | 3-059-082-01 | SPRING, TENSION (CASSETE COMPARTMENT S) |
| 704 | 3-059-208-01 | SPRING (CASSETTE COMPARTMENT T) |
| 705 | X-3950-370-3 | DAMPER ASSY |
| 706 | 3-059-101-03 | RETAINER, LS GUIDE |
| 707 | 7-624-102-04 | STOP RING 1.5, TYPE -E |

| Ref. No. | Part No. | Description |
|---|---|---|
| 709 | 3-704-197-21 | SCREW (M1.4X2.5), SPECIAL HEAD |
| 710 | X-3950-364-1 | GEAR ASSY, GOOSENECK |
| 711 | X-3950-366-1 | TABLE ASSY, T REEL |
| 712 | 3-075-097-01 | SCREW (M1.4X1.4), SPECIAL HEAD |
| 713 | 3-059-093-01 | RETAINER, LED |
| 714 | X-3950-361-1 | PLATE ASSY, RETAINER |
| M901 | A-7048-968-A | DRUM (DEH-18E-R) (SERVICE) |

## 5-1-13. LS CHASSIS BLOCK ASSEMBLY

ns: not supplied



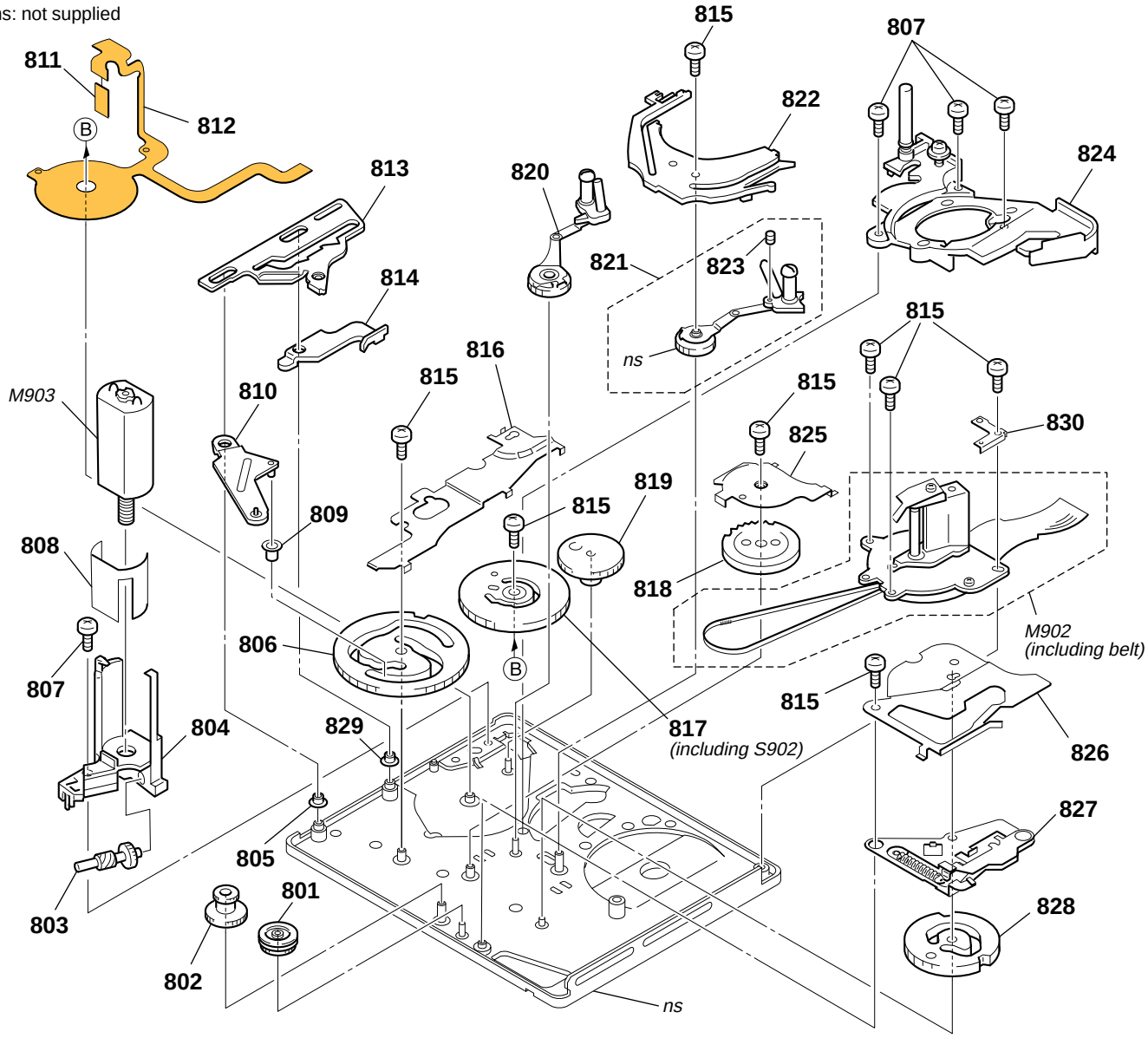

***Note:*** *FP-102 is included in the LS sub assy and is attached to chassis by hot-press.*
*Because installation of FP-102 requires a very high accuracy, FP-102 is not supplied as an independent service parts.*

| Ref. No. | Part No. | Description |
|---|---|---|
| 751 | 3-059-173-01 | PLATE, LS CAM |
| 752 | 3-075-097-01 | SCREW (M1.4X1.4), SPECIAL HEAD |
| 753 | A-7094-816-B | LS BLOCK ASSY |
| 754 | X-3950-371-1 | ARM ASSY, BRAKE (S) DRIVING |
| 755 | 3-059-166-01 | BRAKE (S) |
| 756 | 3-059-146-01 | POSITIONING (S), CASSETTE |
| 757 | 3-059-167-01 | SPRING (BRAKE S), TENSION COIL |
| 758 | 3-059-169-01 | SPRING (BRAKE S ARM), TORSION |
| 759 | 3-703-816-14 | SCREW (M1.4) |
| 760 | 3-059-090-01 | SCREW (M1.4X2.5), SPECIAL HEAD |
| * 761 | X-3950-358-4 | TG1 ASSY |
| 762 | 3-059-156-01 | SPRING (TENSION REGULATOR) |
| 763 | X-3950-365-2 | TABLE ASSY, S REEL |

| Ref. No. | Part No. | Description |
|---|---|---|
| 764 | A-7094-819-A | TG7 BLOCK ASSY |
| 765 | 3-059-165-01 | SPRING (TG7 RETURN), TORSION |
| 766 | X-3950-359-1 | ARM ASSY, PINCH |
| 767 | 3-059-161-01 | SPRING (PINCH RETURN), TORSION |
| 768 | 3-059-170-01 | BRAKE (T) |
| 769 | 3-059-171-01 | GEAR (T), BRAKE |
| 770 | 3-059-172-01 | SPRING (T), BRAKE |
| D901 | 8-719-078-71 | DIODE LN57A,SO (TAPE LED) |
| H901 | 8-719-067-74 | ELEMENT, HOLE HW-105A-CDE-T (S REEL) |
| H902 | 8-719-067-74 | ELEMENT, HOLE HW-105A-CDE-T (T REEL) |
| Q901 | 8-729-028-71 | TRANSISTOR, PN166,SO (TAPE END) |
| Q902 | 8-729-028-71 | TRANSISTOR, PN166,SO (TAPE TOP) |
| S903 | 1-572-288-11 | SWITCH, PUSH (C.C. DOWN) |

## 5-1-14. MECHANISM CHASSIS BLOCK ASSEMBLY

ns: not supplied




| Ref. No. | Part No. | Description |
|---|---|---|
| 801 | 3-059-211-01 | GEAR, CONVERSION |
| 802 | 3-059-220-01 | GEAR, RELAY |
| 803 | 3-059-187-01 | SHAFT, WORM |
| 804 | 3-059-186-02 | HOLDER, MOTOR |
| 805 | 3-060-002-01 | ROLLER, LS GUIDE |
| 806 | 3-059-189-01 | GEAR (A), CAM |
| 807 | 3-704-197-21 | SCREW (M1.4X2.5), SPECIAL HEAD |
| 808 | 3-059-225-01 | SHIELD, MOTOR |
| 809 | 3-059-191-01 | ROLLER, LS |
| 810 | 3-059-190-01 | ARM, LS |
| 811 | 1-677-049-11 | FP-228 FLEXIBLE BOARD (DEW SENSOR) |
| 812 | 1-677-084-11 | FP-100 FLEXIBLE BOARD |
| 813 | 3-059-149-01 | SLIDER, TG1 CAM |
| 814 | 3-059-148-01 | ARM, TG1 DRIVING |
| 815 | 3-703-816-14 | SCREW (M1.4) |
| 816 | 3-059-117-01 | COVER (A), GEAR |
| 817 | X-3950-367-1 | GEAR ASSY, MODE (including S902 (MODE SWITCH)) |

| Ref. No. | Part No. | Description |
|---|---|---|
| 818 | 3-059-139-01 | GEAR, GL DRIVING |
| 819 | 3-059-188-01 | GEAR, DECELERATION |
| 820 | A-7094-818-A | COASTER (S) BLOCK ASSY |
| 821 | A-7094-817-A | COASTER (T) BLOCK ASSY |
| 822 | 3-059-126-01 | RAIL, GUIDE |
| 823 | 3-962-914-01 | SCREW (M1.4X2) |
| 824 | A-7094-822-A | DRUM BASE BLOCK ASSY |
| 825 | 3-059-118-01 | COVER (B), GEAR |
| 826 | 3-059-083-01 | COVER (C), GEAR |
| 827 | X-3950-368-1 | ARM ASSY, PINCH DRIVING |
| 828 | 3-059-192-01 | GEAR (B), CAM |
| 829 | 3-063-355-01 | ROLLER (S1), LS GUIDE |
| 830 | 3-065-202-01 | SUPPORT, TG7 |
| M902 | 8-835-685-01 | MOTOR, DC SCD18A/C-NP (including BELT) (CAPSTAN) |
| M903 | A-7094-823-A | MOTOR BLOCK ASSY, L |

## 5-2. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- Abbreviation
  AUS : Australian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  JE : Tourist model
  KR : Korean model
  NE : North European model
  RU : Russian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| | A-7067-302-A | BT-003 BOARD, COMPLETE (TRV950/TRV950E) | | | |
| | | ********** | | | |
| (Parts on BT-003 board are not replaced individually. They are supplied as being mounted.) | | | | | |
| | A-7078-335-A | CD-389 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | (IC100, 101 and 105 are not included in this complete board.) | | | |
| | | < CAPACITOR > | | | |
| C102 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C103 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C104 | 1-127-895-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C105 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C106 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C107 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C108 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C109 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C110 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C111 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C112 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C113 | 1-104-851-11 | TANTAL. CHIP | 10uF | 20% | 10V |
| C114 | 1-104-851-11 | TANTAL. CHIP | 10uF | 20% | 10V |
| C115 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C116 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C117 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C118 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C119 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C120 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C121 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C122 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C123 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C124 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C125 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C126 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C127 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C128 | 1-127-895-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C129 | 1-127-895-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C130 | 1-115-339-11 | CERAMIC CHIP | 0.1uF | 10% | 50V |
| C131 | 1-104-851-11 | TANTAL. CHIP | 10uF | 20% | 10V |

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| | | < CONNECTOR > | | | |
| CN100 | 1-784-938-21 | CONNECTOR, BOARD TO BOARD 60P | | | |
| | | < IC > | | | |
| IC100 | A-7012-866-A | PRISM BLOCK (ZGDSY2) (Note 1, 2) | | | |
| IC101 | A-7012-866-A | PRISM BLOCK (ZGDSY2) (Note 1, 2) | | | |
| IC102 | 6-701-755-01 | IC AD80017AJRURL | | | |
| IC103 | 6-701-755-01 | IC AD80017AJRURL | | | |
| IC104 | 6-701-755-01 | IC AD80017AJRURL | | | |
| IC105 | A-7012-866-A | PRISM BLOCK (ZGDSY2) (Note 1, 2) | | | |
| | | < COIL > | | | |
| L100 | 1-469-058-11 | INDUCTOR | 22uH | | |
| L101 | 1-469-525-91 | INDUCTOR | 10uH | | |
| L102 | 1-469-525-91 | INDUCTOR | 10uH | | |
| L103 | 1-469-058-11 | INDUCTOR | 22uH | | |
| L104 | 1-469-058-11 | INDUCTOR | 22uH | | |
| L105 | 1-469-525-91 | INDUCTOR | 10uH | | |
| | | < TRANSISTOR > | | | |
| Q100 | 8-729-037-74 | TRANSISTOR | UN9213J- (TX).SO | | |
| Q101 | 8-729-037-74 | TRANSISTOR | UN9213J- (TX).SO | | |
| Q102 | 8-729-037-74 | TRANSISTOR | UN9213J- (TX).SO | | |
| | | < RESISTOR > | | | |
| R100 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R101 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R102 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R103 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R104 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R105 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R106 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R107 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R108 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R109 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R110 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R111 | 1-218-990-11 | SHORT CHIP | 0 | | |

(Note 1) Be sure to read "Note on the CCD Imager Replacement" on page 4-12 when changing the prism block.

(Note 2) CCD Imager (IC100, 101 and 105) is supplied as a prism block.

## CK-116

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| | A-7078-338-A | CK-116 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < BATTERY > | | | |
| BT5201 | 1-756-128-11 | BATTERY, LITHIUM (SECONDARY) | | | |
| | | < CAPACITOR > | | | |
| C5201 | 1-135-957-91 | TANTAL. CHIP | 10uF | 20% | 16V |
| C5202 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| | | < CONNECTOR > | | | |
| CN5201 | 1-794-997-11 | PIN, CONNECTOR 20P | | | |
| CN5202 | 1-816-463-11 | PIN, CONNECTOR (PC BOARD) 10P | | | |
| CN5203 | 1-784-938-21 | CONNECTOR, BOARD TO BOARD 60P | | | |
| CN5204 | 1-794-375-21 | PIN, CONNECTOR 2P | | | |
| CN5205 | 1-816-684-11 | CONNECTOR, FFC/FPC (ZIF) 8P | | | |
| CN5206 | 1-766-336-21 | CONNECTOR, FFC/FPC 6P | | | |
| | | < DIODE > | | | |
| D5201 | 8-719-056-61 | DIODE MAZS082008SO | | | |
| D5202 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| D5203 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| D5204 | 8-719-056-61 | DIODE MAZS082008SO | | | |
| D5205 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| D5206 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| D5207 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| D5208 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| D5209 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| | | < RESISTOR > | | | |
| R5208 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5209 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5210 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5211 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5212 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5213 | 1-218-954-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R5214 | 1-218-954-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R5215 | 1-218-954-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R5216 | 1-218-954-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R5217 | 1-218-955-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R5218 | 1-218-955-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R5219 | 1-218-955-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R5220 | 1-218-955-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R5221 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5222 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5223 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5224 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5225 | 1-218-964-11 | RES-CHIP | 8.2K | 5% | 1/16W |
| R5226 | 1-218-960-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R5227 | 1-218-960-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R5228 | 1-218-960-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R5229 | 1-218-960-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R5230 | 1-218-970-11 | RES-CHIP | 27K | 5% | 1/16W |
| R5231 | 1-218-964-11 | RES-CHIP | 8.2K | 5% | 1/16W |
| R5232 | 1-218-964-11 | RES-CHIP | 8.2K | 5% | 1/16W |
| R5233 | 1-218-964-11 | RES-CHIP | 8.2K | 5% | 1/16W |
| R5234 | 1-218-964-11 | RES-CHIP | 8.2K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R5235 | 1-218-970-11 | RES-CHIP | 27K | 5% | 1/16W |
| R5236 | 1-218-970-11 | RES-CHIP | 27K | 5% | 1/16W |
| R5237 | 1-218-970-11 | RES-CHIP | 27K | 5% | 1/16W |
| R5238 | 1-218-970-11 | RES-CHIP | 27K | 5% | 1/16W |
| R5239 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5240 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5243 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R5244 | 1-218-990-11 | SHORT CHIP | 0 | | |
| | | < SWITCH > | | | |
| S5116 | 1-771-138-82 | SWITCH, KEY BOARD (DISPLAY/TOUCH PANEL) | | | |
| S5201 | 1-572-342-11 | SWITCH, SLIDE (AUTO LOCK/MANU/HOLD) | | | |
| S5202 | 1-762-648-21 | SWITCH, SLIDE (ZEBRA OFF/70/100) | | | |
| S5203 | 1-771-138-82 | SWITCH, KEY BOARD (DATA CODE) | | | |
| S5204 | 1-571-787-31 | SWITCH, TACTILE (EDITSEARCH-) | | | |
| S5205 | 1-571-787-31 | SWITCH, TACTILE (EDITSEARCH+) | | | |
| S5206 | 1-771-138-82 | SWITCH, KEY BOARD (STOP) | | | |
| S5207 | 1-771-138-82 | SWITCH, KEY BOARD (REW) | | | |
| S5208 | 1-771-138-82 | SWITCH, KEY BOARD (PLAY) | | | |
| S5209 | 1-771-138-82 | SWITCH, KEY BOARD (FF) | | | |
| S5210 | 1-771-138-82 | SWITCH, KEY BOARD (PAUSE) | | | |
| S5211 | 1-771-138-82 | SWITCH, KEY BOARD (REC) | | | |
| S5212 | 1-771-138-82 | SWITCH, KEY BOARD (REC) | | | |
| S5213 | 1-771-138-82 | SWITCH, KEY BOARD (COLOR BAR) | | | |
| S5214 | 1-771-138-82 | SWITCH, KEY BOARD (VOLUME+) | | | |
| S5215 | 1-771-138-82 | SWITCH, KEY BOARD (VOLUME-) | | | |
| S5217 | 1-771-138-82 | SWITCH, KEY BOARD (AUDIO DUB) | | | |
| S5218 | 1-571-787-31 | SWITCH, TACTILE (BACK LIGHT) | | | |
| S5219 | 1-571-787-31 | SWITCH, TACTILE (SPOT LIGHT) | | | |
| S5220 | 1-771-138-82 | SWITCH, KEY BOARD (CUSTOM PRESET) | | | |
| S5221 | 1-771-138-82 | SWITCH, KEY BOARD (RESET) | | | |

Electrical parts list of the DB-014 board is not shown.
Page 5-17 to 5-23 are not shown.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or eqivalent type.

**FP-102** | **FP-495** | **FP-496** | **FP-497** | **FP-498** | **FP-499** | **FP-504** | **JK-222**

| Ref. No. | Part No. | Description |
|---|---|---|
| | | FP-102 FLEXIBLE BOARD (Not supplied) |
| | | ********** |
| | | < HOLE ELEMENT > |
| H901 | 8-719-067-74 | ELEMENT, HOLE HW-105A-CDE-T (S REEL) |
| H902 | 8-719-067-74 | ELEMENT, HOLE HW-105A-CDE-T (T REEL) |
| | | < DIODE > |
| D901 | 8-719-078-71 | DIODE LN57A.SO (TAPE LED) |
| | | < TRANSISTOR > |
| Q901 | 8-729-028-71 | TRANSISTOR PN166.SO (TAPE END) |
| Q902 | 8-729-028-71 | TRANSISTOR PN166.SO (TAPE TOP) |
| | | < SWITCH > |
| S903 | 1-572-288-11 | SWITCH, PUSH (C, C, DOWN) |
| | A-7078-342-A | FP-495 FLEXIBLE BOARD, COMPLETE |
| | | ********** |
| S001 | 1-786-179-31 | SWITCH, PUSH (1KEY) (PANEL OPEN) |
| S002 | 1-771-039-31 | SWITCH, PUSH (PANEL REVERSE) |
| | A-7078-343-A | FP-496 FLEXIBLE BOARD, COMPLETE |
| | | ********** |
| | | < CONNECTOR > |
| CN001 | 1-784-938-21 | CONNECTOR, BOARD TO BOARD 60P |
| CN002 | 1-784-939-11 | CONNECTOR, BOARD TO BOARD 60P |
| | A-7078-344-A | FP-497 FLEXIBLE BOARD, COMPLETE |
| | | ********** |
| | | < DIODE > |
| D001 | 8-719-080-62 | DIODE CL-190HBF-X-T (BLUETOOTH) (Note) |
| | | < SWITCH > |
| S001 | 1-771-138-82 | SWITCH, KEY BOARD (NETWORK) (Note) |
| | A-7078-345-A | FP-498 FLEXIBLE BOARD, COMPLETE |
| | | ********** |
| | | < CONNECTOR > |
| CN001 | 1-785-969-21 | CONNECTOR, BOARD TO BOARD 100P |
| CN002 | 1-785-967-21 | CONNECTOR, BOARD TO BOARD 100P |
| | A-7078-346-A | FP-499 FLEXIBLE BOARD, COMPLETE |
| | | ********** |
| CN001 | 1-815-854-11 | CONNECTOR, BOARD TO BOARD 80P |
| CN002 | 1-815-855-31 | CONNECTOR, BOARD TO BOARD 80P |

| Ref. No. | Part No. | Description |
|---|---|---|
| | A-7078-341-A | FP-504 FLEXIBLE BOARD, COMPLETE |
| | | ********** |
| | | < CAPACITOR > |
| C601 | 1-137-710-11 | CERAMIC CHIP 10uF 20% 6.3V |
| | | < DIODE > |
| D601 | 8-719-070-92 | DIODE TLOU1008 (T05, SOY) (FLASH) |
| D602 | 8-719-052-25 | DIODE CL-200IR-X-TU-BC (IR) |
| D603 | 8-719-061-82 | DIODE TLSU1002 (TPX1, SONY) (CAMERA RECORDING) |
| D605 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |
| D606 | 8-719-056-23 | DIODE MA2S111- (K8).SO |
| D607 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |
| D608 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |
| D609 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |
| D610 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |
| | | < FUSE > |
| ⚠F601 | 1-533-874-11 | FUSE, MICRO (0.2A/24V) |
| | | < IC > |
| IC601 | 8-742-221-00 | HYB IC SBX3055-01 |
| | | < PHOTO INTERRUPTER > |
| PH601 | 8-759-014-54 | HIC CNA1312K01S0 |
| PH602 | 8-759-014-54 | HIC CNA1312K01S0 |
| | | < TRANSISTOR > |
| Q601 | 8-729-037-72 | TRANSISTOR UN9211J- (K8).SO |
| | | < RESISTOR > |
| R601 | 1-216-838-11 | METAL CHIP 27K 5% 1/16W |
| R602 | 1-216-832-11 | METAL CHIP 8.2K 5% 1/16W |
| R603 | 1-216-813-11 | METAL CHIP 220 5% 1/16W |
| R604 | 1-216-828-11 | METAL CHIP 3.9K 5% 1/16W |
| R605 | 1-216-805-11 | METAL CHIP 47 5% 1/16W |
| R606 | 1-216-815-11 | METAL CHIP 330 5% 1/16W |
| R607 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W |
| | | < SWITCH > |
| S601 | 1-771-487-21 | SWITCH, SLIDE (FOCUS AUTO/MAN/INFINITY) |
| S602 | 1-771-138-82 | SWITCH, KEY BOARD (PUSH AUTO) |
| S603 | 1-771-138-82 | SWITCH, KEY BOARD (STROBO) |
| S604 | 1-771-138-82 | SWITCH, KEY BOARD (FADER) |
| | A-7078-332-A | JK-222 BOARD, COMPLETE |
| | | ********** |
| | | < CONNECTOR > |
| CN401 | 1-785-828-11 | CONNECTOR, SQUARE TYPE 4P (DV IN/OUT) |
| CN402 | 1-794-962-11 | CONNECTOR, SQUARE TYPE (USB 5P) (USB) |
| | | < DIODE > |
| D401 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |
| D402 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) |

(Note) Although parts are mounted on the board, they are not used in TRV940/TRV940E.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| | | < FERRITE BEAD > | | | |
| FB401 | 1-500-444-11 | FERRITE | 0uH | | |
| FB402 | 1-500-444-11 | FERRITE | 0uH | | |
| FB403 | 1-500-444-11 | FERRITE | 0uH | | |
| FB404 | 1-500-444-11 | FERRITE | 0uH | | |
| FB405 | 1-500-444-11 | FERRITE | 0uH | | |
| FB406 | 1-500-444-11 | FERRITE | 0uH | | |
| FB407 | 1-500-444-11 | FERRITE | 0uH | | |
| | | < JACK > | | | |
| J401 | 1-778-518-11 | CONNECTOR, EXTERNAL (S VIDEO ID-2) | | | |
| J402 | 1-793-995-11 | JACK, SUPER SMALL TYPE (LANC) | | | |
| J403 | 1-569-950-41 | JACK (SMALL TYPE) (HEADPHONES) | | | |
| J404 | 1-778-040-11 | JACK, SMALL TYPE (AUDIO/VIDEO) | | | |
| | | < LINE FILTER > | | | |
| LF401 | 1-419-100-21 | INDUCTOR | 0uH | | |
| LF402 | 1-419-100-21 | INDUCTOR | 0uH | | |
| | | < RESISTOR > | | | |
| R401 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R402 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R403 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R404 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R406 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R407 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R408 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R409 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R410 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R411 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| | | < VARISTOR > | | | |
| VDR401 | 1-801-862-11 | VARISTOR, CHIP | | | |
| VDR402 | 1-803-742-21 | VARISTOR, CHIP | | | |
| VDR403 | 1-803-742-21 | VARISTOR, CHIP | | | |
| VDR404 | 1-801-862-11 | VARISTOR, CHIP | | | |
| VDR405 | 1-803-742-21 | VARISTOR, CHIP | | | |
| VDR406 | 1-801-862-11 | VARISTOR, CHIP | | | |
| VDR407 | 1-801-862-11 | VARISTOR, CHIP | | | |
| VDR408 | 1-801-862-11 | VARISTOR, CHIP | | | |
| VDR409 | 1-803-742-21 | VARISTOR, CHIP | | | |
| | A-7078-333-A | LB-080 BOARD, COMPLETE<br>********** | | | |
| | | < CAPACITOR > | | | |
| C6101 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C6102 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| | | < CONNECTOR > | | | |
| CN6101 | 1-573-360-21 | CONNECTOR, FFC/FPC 20P | | | |
| CN6102 | 1-573-356-21 | CONNECTOR, FFC/FPC 16P | | | |
| | | < DIODE > | | | |
| D6101 | 8-719-018-51 | DIODE CL-170R-CD-T (REC) | | | |
| D6102 | 8-719-082-33 | DIODE NSCW100-T39 (BACKLIGHT) | | | |

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| | | < IC > | | | |
| IC6101 | 8-759-581-11 | IC NJM2125F (TE2) | | | |
| | | < TRANSISTOR > | | | |
| Q6101 | 8-729-054-48 | TRANSISTOR | RN4983FE (TPLR3) | | |
| Q6102 | 8-729-054-48 | TRANSISTOR | N1B04FE-Y/GR (TPLR3) | | |
| | | < RESISTOR > | | | |
| R6101 | 1-218-948-11 | RES-CHIP | 390 | 5% | 1/16W |
| R6102 | 1-208-941-11 | METAL CHIP | 180K | 0.5% | 1/16W |
| R6103 | 1-208-719-11 | METAL CHIP | 33K | 0.5% | 1/16W |
| R6104 | 1-218-959-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R6105 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R6106 | 1-211-977-11 | METAL CHIP | 22 | 0.5% | 1/10W |
| | | < THERMISTOR > | | | |
| TH6101 | 1-810-811-11 | THERMISTOR, NTC (1608) | | | |
| | A-7078-336-A | MA-410 BOARD, COMPLETE<br>********** | | | |
| | | < CAPACITOR > | | | |
| C5901 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C5905 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C5906 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C5907 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C5908 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C5909 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C5910 | 1-117-919-11 | TANTAL. CHIP | 10uF | 20% | 6.3V |
| C5911 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C5912 | 1-117-919-11 | TANTAL. CHIP | 10uF | 20% | 6.3V |
| C5913 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C5914 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C5915 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C5917 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C5918 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C5920 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5921 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5922 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5923 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C5924 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5925 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C5926 | 1-164-174-11 | CERAMIC CHIP | 0.0082uF | 10% | 25V |
| C5927 | 1-164-174-11 | CERAMIC CHIP | 0.0082uF | 10% | 25V |
| C5928 | 1-164-245-11 | CERAMIC CHIP | 0.015uF | 10% | 25V |
| C5929 | 1-164-942-11 | CERAMIC CHIP | 0.0068uF | 10% | 16V |
| C5930 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C5931 | 1-164-245-11 | CERAMIC CHIP | 0.015uF | 10% | 25V |
| C5932 | 1-117-919-11 | TANTAL. CHIP | 10uF | 20% | 6.3V |
| C5933 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5934 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C5935 | 1-117-919-11 | TANTAL. CHIP | 10uF | 20% | 6.3V |
| C5936 | 1-165-128-11 | CERAMIC CHIP | 0.22uF | | 16V |
| C5937 | 1-125-841-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C5938 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C5939 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5940 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5941 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5944 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V (Note) |
| C5945 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V (Note) |
| | | < CONNECTOR > | | | |
| * CN5901 | 1-580-055-21 | PIN, CONNECTOR (SMD) 2P | | | |
| * CN5902 | 1-580-055-21 | PIN, CONNECTOR (SMD) 2P | | | |
| CN5903 | 1-779-327-11 | CONNECTOR, FFC/FPC 6P | | | |
| CN5904 | 1-816-684-11 | CONNECTOR, FFC/FPC (ZIF) 8P | | | |
| CN5905 | 1-816-177-11 | CONNECTOR, FFC/FPC (ZIF) 16P | | | |
| CN5906 | 1-784-422-11 | CONNECTOR, FFC/FPC (ZIF) 33P | | | |
| | | < DIODE > | | | |
| D5903 | 8-719-062-16 | DIODE 01ZA8.2 (TPL3) | | | |
| | | < FERRITE BEAD > | | | |
| FB5901 | 1-500-444-11 | FERRITE | 0uH | | |
| FB5902 | 1-500-444-11 | FERRITE | 0uH | | |
| | | < IC > | | | |
| IC5901 | 8-759-638-50 | IC AN2901FHQ-EB | | | |
| IC5902 | 8-759-581-11 | IC NJM2125F (TE2) | | | |
| | | < JACK > | | | |
| J5901 | 1-691-737-41 | JACK (SMALL TYPE) (MIC (PLUG IN POWER)) | | | |
| | | < COIL > | | | |
| L5901 | 1-469-528-91 | INDUCTOR | 100uH | | |
| | | < TRANSISTOR > | | | |
| Q5901 | 8-729-042-26 | TRANSISTOR | 2SB1462J-QR (K8).SO | | |
| Q5902 | 8-729-048-77 | TRANSISTOR | XP4313- (TX).SO | | |
| Q5903 | 8-729-048-77 | TRANSISTOR | XP4313- (TX).SO | | |
| Q5904 | 8-729-402-42 | TRANSISTOR | UN5213-TX | | |
| Q5905 | 8-729-403-35 | TRANSISTOR | UN5113-TX | | |
| Q5906 | 8-729-140-75 | TRANSISTOR | 2SD999-T1-CLCK | | |
| | | < RESISTOR > | | | |
| R5901 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R5902 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5903 | 1-218-968-11 | RES-CHIP | 18K | 5% | 1/16W |
| R5904 | 1-218-971-11 | RES-CHIP | 33K | 5% | 1/16W |
| R5905 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5906 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5907 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5908 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5909 | 1-218-963-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| R5910 | 1-218-963-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| R5911 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5912 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5914 | 1-216-803-11 | METAL CHIP | 33 | 5% | 1/16W |
| R5915 | 1-216-803-11 | METAL CHIP | 33 | 5% | 1/16W |
| R5916 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5917 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R5918 | 1-218-967-11 | RES-CHIP | 15K | 5% | 1/16W |
| R5919 | 1-208-910-11 | RES-CHIP | 9.1K | 5% | 1/16W |
| R5920 | 1-218-967-11 | RES-CHIP | 15K | 5% | 1/16W |
| R5921 | 1-208-910-11 | RES-CHIP | 9.1K | 5% | 1/16W |
| R5922 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R5923 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5924 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R5925 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R5926 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R5927 | 1-220-191-81 | RES-CHIP | 5.1K | 5% | 1/16W |
| R5928 | 1-220-191-81 | RES-CHIP | 5.1K | 5% | 1/16W |
| R5929 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R5930 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R5931 | 1-218-971-11 | RES-CHIP | 33K | 5% | 1/16W |
| R5933 | 1-218-954-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R5934 | 1-218-968-11 | RES-CHIP | 18K | 5% | 1/16W |
| R5935 | 1-218-971-11 | RES-CHIP | 33K | 5% | 1/16W |
| R5936 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R5937 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R5938 | 1-208-912-11 | METAL CHIP | 11K | 0.5% | 1/16W |
| R5939 | 1-216-820-11 | METAL CHIP | 820 | 5% | 1/16W |
| R5940 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R5941 | 1-208-701-11 | METAL CHIP | 5.6K | 0.5% | 1/16W |
| R5943 | 1-208-912-11 | METAL CHIP | 11K | 0.5% | 1/16W |
| R5944 | 1-218-943-11 | RES-CHIP | 150 | 5% | 1/16W |
| R5946 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R5947 | 1-218-952-11 | RES-CHIP | 820 | 5% | 1/16W |
| R5948 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R5949 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R5951 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R5952 | 1-218-947-11 | RES-CHIP | 330 | 5% | 1/16W |
| R5953 | 1-216-313-00 | METAL CHIP | 8.2 | 5% | 1/10W |
| | | < VARISTOR > | | | |
| VDR591 | 1-801-862-11 | VARISTOR, CHIP | | | |
| VDR592 | 1-801-862-11 | VARISTOR, CHIP | | | |

| | | | | | |
|---|---|---|---|---|---|
| | A-7078-337-A | PD-168 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C5701 | 1-113-988-11 | TANTAL. CHIP | 68uF | 20% | 4V |
| C5702 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5703 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C5704 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C5705 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C5706 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C5707 | 1-135-259-11 | TANTAL. CHIP | 10uF | 20% | 6.3V |
| C5708 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5709 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5710 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C5711 | 1-107-687-11 | TANTAL. CHIP | 3.3uF | 20% | 20V |
| C5712 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C5713 | 1-164-739-11 | CERAMIC CHIP | 560PF | 5% | 50V |
| C5714 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |

(Note) C5944 and C5945 are mounted on the board with suffix number 12.

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C5715 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5716 | 1-104-851-11 | TANTAL. CHIP | 10uF | 20% | 10V |
| C5717 | 1-164-357-11 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C5718 | 1-164-866-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C5719 | 1-109-982-11 | CERAMIC CHIP | 1uF | 10% | 10V |
| C5720 | 1-109-982-11 | CERAMIC CHIP | 1uF | 10% | 10V |
| C5721 | 1-109-982-11 | CERAMIC CHIP | 1uF | 10% | 10V |
| C5722 | 1-113-994-11 | TANTAL. CHIP | 6.8uF | 20% | 16V |
| C5723 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5724 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5726 | 1-107-682-11 | CERAMIC CHIP | 1uF | 10% | 16V |
| C5727 | 1-107-682-11 | CERAMIC CHIP | 1uF | 10% | 16V |
| C5801 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5802 | 1-127-985-91 | TANTAL. CHIP | 47uF | 20% | 16V |
| C5803 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C5805 | 1-137-710-11 | CERAMIC CHIP | 10uF | 20% | 6.3V |
| C5807 | 1-125-837-91 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C5808 | 1-165-897-11 | TANTAL. CHIP | 22uF | 20% | 10V |
| | | < CONNECTOR > | | | |
| CN5701 | 1-573-364-11 | CONNECTOR, FFC/FPC 24P | | | |
| CN5802 | 1-794-997-11 | PIN, CONNECTOR 20P | | | |
| * CN5803 | 1-778-155-11 | CONNECTOR, FFC/FPC (ZIF) 7P | | | |
| CN5804 | 1-784-420-11 | CONNECTOR, FFC/FPC (ZIF) 21P | | | |
| CN5805 | 1-785-554-21 | CONNECTOR (5P), CARD EDGE | | | |
| CN5806 | 1-816-463-11 | PIN, CONNECTOR (PC BOARD) 10P | | | |
| | | < DIODE > | | | |
| D5701 | 8-719-404-50 | DIODE MA111-TX | | | |
| D5702 | 8-719-084-46 | DIODE 1SV288 (TPH3) | | | |
| | | < IC > | | | |
| IC5701 | 6-702-491-01 | IC AN12580A-BB | | | |
| IC5702 | 8-759-833-18 | IC CM7021L3-E2 | | | |
| IC5801 | 8-759-573-02 | IC BU9735K-E2 | | | |
| | | < COIL > | | | |
| L5701 | 1-469-525-91 | INDUCTOR | 10uH | | |
| L5702 | 1-414-771-91 | INDUCTOR | 10uH | | |
| L5703 | 1-414-771-91 | INDUCTOR | 10uH | | |
| L5704 | 1-414-771-91 | INDUCTOR | 10uH | | |
| L5705 | 1-412-943-11 | INDUCTOR | 2.2uH | | |
| L5801 | 1-412-056-11 | INDUCTOR | 4.7uH | | |
| L5802 | 1-414-757-11 | INDUCTOR | 100uH | | |
| | | < TRANSISTOR > | | | |
| Q5701 | 8-729-037-52 | TRANSISTOR | 2SD2216J-QR (K8).SO | | |
| Q5702 | 8-729-037-74 | TRANSISTOR | UN9213J- (K8).SO | | |
| Q5801 | 8-729-042-72 | TRANSISTOR | UN9214J- (K8).SO | | |
| Q5802 | 8-729-042-26 | TRANSISTOR | 2SB1462J-QR (K8).SO | | |
| | | < RESISTOR > | | | |
| R5701 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R5702 | 1-208-719-11 | METAL CHIP | 33K | 0.5% | 1/16W |
| R5703 | 1-218-970-11 | METAL CHIP | 27K | 0.5% | 1/16W |
| R5705 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R5706 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5707 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R5708 | 1-218-958-11 | RES-CHIP | 2.7K | 5% | 1/16W |
| R5709 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R5710 | 1-218-975-11 | RES-CHIP | 68K | 5% | 1/16W |
| R5711 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R5712 | 1-218-975-11 | RES-CHIP | 68K | 5% | 1/16W |
| R5713 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R5714 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R5717 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R5719 | 1-218-942-11 | RES-CHIP | 120 | 5% | 1/16W |
| R5721 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5722 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R5727 | 1-218-974-11 | RES-CHIP | 56K | 5% | 1/16W |
| R5732 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R5736 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R5737 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R5801 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R5802 | 1-216-855-11 | METAL CHIP | 680K | 5% | 1/16W |
| R5803 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R5804 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R5805 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| | A-7078-339-A | SE-132 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C4001 | 1-127-895-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C4002 | 1-127-895-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C4003 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C4004 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C4005 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C4006 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C4007 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C4008 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C4009 | 1-127-692-11 | CERAMIC CHIP | 10uF | 10% | 6.3V |
| C4010 | 1-127-692-11 | CERAMIC CHIP | 10uF | 10% | 6.3V |
| C4011 | 1-127-692-11 | CERAMIC CHIP | 10uF | 10% | 6.3V |
| C4012 | 1-127-692-11 | CERAMIC CHIP | 10uF | 10% | 6.3V |
| C4014 | 1-127-895-91 | TANTAL. CHIP | 22uF | 20% | 4V |
| C4015 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| | | < CONNECTOR > | | | |
| CN4005 | 1-764-680-21 | CONNECTOR, FFC/FPC (ZIF) 8P | | | |
| | | < IC > | | | |
| IC4001 | 8-759-489-19 | IC NJM3230V (TE2) | | | |
| | | < COIL > | | | |
| L4001 | 1-414-771-91 | INDUCTOR | 10uH | | |
| | | < TRANSISTOR > | | | |
| Q4001 | 8-729-042-26 | TRANSISTOR | 2SB1462J-QR (K8).SO | | |
| Q4002 | 8-729-037-74 | TRANSISTOR | UN9213J- (K8).SO | | |

## SE-132

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| | | < RESISTOR > | | | |
| R4001 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4002 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4003 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4004 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4005 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4006 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4007 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R4009 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R4010 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4011 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| | | < SENSOR > | | | |
| SE4001 | 1-476-807-31 | SENSOR, ANGULAR VELOCITY (PITCH) | | | |
| SE4002 | 1-476-807-41 | SENSOR, ANGULAR VELOCITY (YAW) | | | |

Electrical parts list of the VC-288 board is not shown.
Page 5-29 to 5-36 are not shown.

| Ref. No. | Part No. | Description |
|---|---|---|
| | | ACCESSORIES |
| | | ********** |
| ⚠ | 1-475-599-14 | ADAPTOR, AC (EXCEPT KR, CH) |
| ⚠ | 1-475-599-73 | ADAPTOR, AC (KR) |
| ⚠ | 1-475-599-82 | ADAPTOR, AC (CH) |
| | 1-475-950-53 | REMOTE COMMANDER (RMT-811) |
| ⚠ | 1-569-007-11 | ADAPTOR, CONVERSION (E, HK, JE) |
| ⚠ | 1-569-008-21 | ADAPTOR, CONVERSION 2P (E, HK) |
| | 1-573-291-11 | CONNECTOR, CONVERSION (21P) (AEP, UK, EE, NE, RU) |
| ⚠ | 1-575-131-11 | CORD, POWER (AEP, EE, NE, RU) |
| ⚠ | 1-696-819-11 | CORD, POWER (AUS) |
| | 1-757-294-11 | CORD, CONNECTION (USB 5P) |
| ⚠ | 1-769-608-11 | CORD, POWER (E) |
| ⚠ | 1-776-985-11 | CORD, POWER (KR) |
| ⚠ | 1-782-476-11 | CORD, POWER (CH) |
| ⚠ | 1-783-374-11 | CORD, POWER (UK, HK) |
| ⚠ | 1-790-107-22 | CORD, POWER (US, CND) |
| ⚠ | 1-790-732-11 | CORD, POWER (JE) |
| | 1-824-097-11 | CORD, CONNECTION (A/V CONNECTING CABLE) |
| | 3-053-056-01 | LID, BATTERY CASE (FOR RMT-811) |
| | 3-072-414-01 | SPVD-008 (CD-ROM) (EXCEPT US, CND) |
| | 3-072-654-01 | SPVD-008 (I) (CD-ROM) (US, CND) |
| | 3-073-861-01 | CLOTH (TL), CLEANING |
| | 3-074-603-11 | OPERATING INSTRUCTIONS FOR N/W (ENGLISH) (TRV950: US) |
| | 3-075-396-11 | MANUAL, NETWORK INSTRUCTION (ENGLISH, FRENCH) (TRV950: CND,E/TRV950E: E, HK, AUS) |
| | 3-075-396-21 | MANUAL, NETWORK INSTRUCTION (ENGLISH) (TRV950E: UK) |
| | 3-075-396-31 | MANUAL, NETWORK INSTRUCTION (ENGLISH, DUTCH) (TRV950E: AEP) |
| | 3-075-396-41 | MANUAL, NETWORK INSTRUCTION (FRENCH, GERMAN) (TRV950E: AEP) |
| | 3-075-396-51 | MANUAL, NETWORK INSTRUCTION (ITALIAN, GREEK) (TRV950E: AEP) |
| | 3-075-396-61 | MANUAL, NETWORK INSTRUCTION (SPANISH, PORTUGUESE) (TRV950E: AEP) |
| | 3-075-396-71 | MANUAL, NETWORK INSTRUCTION (TRADITIONAL CHINESE) (TRV950: E/TRV950E: HK) |
| | 3-075-396-81 | MANUAL, NETWORK INSTRUCTION (SIMPLIFIED CHINESE) (TRV950E: E) |
| | 3-075-494-11 | MANUAL, INSTRUCTION (ENGLISH) (TRV940: E, HK, JE/TRV950) |
| | 3-075-494-21 | MANUAL, INSTRUCTION (FRENCH) (TRV950: CND) |
| | 3-075-494-31 | MANUAL, INSTRUCTION (SPANISH, PORTUGUESE) (TRV940: E, JE/TRV950: E) |
| | 3-075-494-41 | MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TRV940: E, HK/TRV950: E) |
| | 3-075-494-51 | MANUAL, INSTRUCTION (ARABIC) (TRV940: E/TRV950: E) |
| | 3-075-494-61 | MANUAL, INSTRUCTION (KOREAN) (TRV940: KR, JE) |
| | 3-075-495-11 | MANUAL, INSTRUCTION (ENGLISH, FRENCH) (TRV940E: E, CH, JE/TRV950E: UK, E, HK, AUS) |
| | 3-075-495-21 | MANUAL, INSTRUCTION (FRENCH, GERMAN) (TRV940E: E, JE/TRV950E: AEP, E) |
| | 3-075-495-31 | MANUAL, INSTRUCTION (ENGLISH, DUTCH) (TRV950E: AEP) |
| | 3-075-495-41 | MANUAL, INSTRUCTION (SPANISH, PORTUGUESE) (TRV940E: AEP/TRV950E: AEP) |
| | 3-075-495-51 | MANUAL, INSTRUCTION (ITALIAN, GREEK) (TRV940E: AEP/TRV950E: AEP) |
| | 3-075-495-61 | MANUAL, INSTRUCTION (ARABIC, PERSIAN) (TRV940E: E/TRV950E: E) |
| | 3-075-495-71 | MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TRV950E: HK) |
| | 3-075-495-81 | MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (TRV940E: E, CH, JE/TRV950E: E) |
| | 3-987-015-01 | BELT (S), SHOULDER |
| | A-7024-735-A | MEMORY BLOCK ASSY (8),PACKING |

| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

2002I0500-1
©2002.09
Published by DI Customer Center

# Revision History

| Ver. | Date | History | Contents | S.M. Rev. issued |
|---|---|---|---|---|
| 1.0 | 2002.05 | Official Release | — | — |
| 1.1 | 2002.09 | Correction-1 (C1) | • Correction of BLOCK DIAGRAMS<br>• Correction of FRAME SCHEMATIC DIAGRAMS<br>• Correction of SCHEMATIC DIAGRAMS<br>S.M. correction : Page 3-1, Page 4-1, Page 4-77 | Yes |
| | | | | |